PROGRAM REVIEW

Fairmont State Board of Governors

☐ **Program with Special Accreditation** ☐ **Program without Special Accreditation**

Date Submitted 2-1-12

Program Bachelor of Science in Information Systems Management
Degree and Title

INSTITUTIONAL RECOMMENDATION

The institution is obligated to recommend continuance or discontinuance of a program and to provide a brief rationale for its recommendation:

_____**1. Continuation of the program at the current level of activity;**

_____**2. Continuation of program with corrective action (for example, reducing the range of optional tracks or merging programs);**

_____**3. Identification of the program for further development (for example, providing additional institutional commitment);**

_____**4. Development of a cooperative program with another institution, or sharing courses, facilities, faculty, and the like;**

_____**5. Discontinuation of the Program**

Rationale for Recommendation:

Rebecca J. Giorelli — **Signature of person preparing report:** — 2/1/2012 — **Date**

Richard Harvey — **Signature of Dean** — 2/1/12 — **Date**

Christina Laboratta — **Signature of Provost and Vice President for Academic Affairs:** — 6-6-12 — **Date**

Maria C. Rea — **Signature of President:** — 6-6-12 — **Date**

Ron L Tucker — **Signature of Chair, Board of Governors:** — 6-6-12 — **Date**

Executive Summary for Program Review

Name and degree level of program

Bachelor of Science in Information Systems Management (BSISM)

External reviewer(s)

Jeff Tucker, *Chief Technology Officer, Innovative Management and Technology Services*
David Jones, *Principal and Program Manager, SRA International, Inc.*

In addition to the two formal external reviews, an Advisory Board was created upon implementation of the newly approved Bachelor of Science in Information Systems Management Program in Fall 2010 to assist the faculty with continued review, development and improvement of the ISM program.

Synopses of significant findings, including findings of external reviewer(s)

Self-study Findings - Information Systems (IS) is a very dynamic field of study; therefore, it is very important the IS curriculum undergo a regular review with updates being made to keep pace with the demands of the profession. These changes must reflect the current trends in computing technology, information systems, and business, as well as the advances being made in standards, tools, and technologies related to the IS discipline. The Information Systems curriculum at FSU was developed in the 1990s and went through some minor revisions in 2003. However, the IS program had not been updated since that time despite the significant changes in the IS Profession and its requirements. Therefore, the program curriculum for both the BS in Information Systems and the minor in Information Systems were completely revamped during this five-year review period based upon the requirements of ABET, AACSB, changing demands in the Information Systems Profession, and the IS model curriculum as designed by the Joint Task Force for Computing Curricula. This revised curriculum was intended to strengthen the Information Systems (IS) program by combining the IS requirements with the general studies and elective requirements set forth by FSU in a way so as to better prepare graduates for a professional career in the information systems field, for graduate study, and for functioning in modern society. The area requirements include up-to-date coverage of basic and advanced topics in information systems as well as an emphasis on business and project management.

ISM Graduates Exit Survey Results - Upon implementation of the new Information Systems Management Program in Fall 2010, an exit interview process was established with graduating seniors. Eleven exit surveys have been completed to date. Twenty items were ranked within three main categories: overall impression of the program; participation in IS-related activities; and, professional development. The results showed that the highest rated aspect of the overall impression of the ISM program was the quality of academic advising (4.27) and the lowest ranked item was logic and flow of courses throughout the ISM program (3.00). However, the students surveyed would have been evaluating the program logic and flow of courses from the program prior to the new curriculum requirements. The new program curriculum was developed in recognition of problems with the logic and flow of the courses in the previous program requirements. The participation in IS-related activities category received the lowest ratings of the three categories. In an effort to provide real-life hands-on experiences in IS-related project environments, the new capstone course (BISM 4800 Information Systems Project Management)

was established. This course is conducted in collaboration with the Computer Science Senior Project course (COMP 4440 Software Engineering) to provide a collaborative multi-disciplinary project environment for every ISM student. Two-thirds of the items in the professional development category were averaged at ratings greater than 4.00. The highest rated aspect was "I have developed the skills to communicate with a variety of audiences" (4.45). The results indicated that students felt they developed strong oral presentation skills (4.27) and can function effectively in a team environment (4.27). In addition, the results indicated that students felt positively in the development of their ability to analyze a problem, and identify and define the computing requirements appropriate to its solution (4.18) and in the development of their understanding of professional, ethical and social responsibilities (4.18).

Employer Survey Results - An employer response survey was established during the 2011-2012 academic year. Only six surveys have been received to date. Twenty-three items were ranked within six categories (teamwork, self-management, communication skills, problem-solving, initiative and technical skills). Each item was ranked on a scale of 1 to 5 with 5 being the highest positive score possible for any item. Of the twenty-three ranked items, the majority (54%) were rated greater than or equal to 4.00. The results indicate the highest ranked categories were technical skills (overall average rating for category items = 4.46) and self-management (4.03). The category with the lowest average rating was initiative (3.60). Within this category, the lowest ranked item was sets and communicates goals and follows up with results (2.83). This was the only item on the survey that received a rating less than 3.00. This issue was discussed and addressed with the implementation of the new ISM curriculum. A focus on independent active learning is established from the first course (BISM 1200 Introduction to Computing). Expectations are significantly higher than the previous INFO 1100 course which provided step-by-step Office application activities. The new course requires critical thinking and application of content presented in the classroom. Students are taught how to find resources to complete activities as opposed to being given step-by-step instructions. Employers were also asked to rank the ISM graduates as compared to graduates from other programs in similar positions. One-third responded our graduates ranked in the top 5%; one-half responded in the top 25%; and all responses were at least in the top 50%. When asked to discuss whether employer expectations were met or exceeded by FSU Information Systems graduates, two-thirds of the responses indicated that expectations were exceeded and all survey responses indicated that expectations were at least met.

Summary of External Reviewer Findings – Overall, the Information Systems Management (ISM) major curriculum and course content are solid. ISM is a tricky field of study, needing in some ways to cover a much broader scope of information technology career outcomes than a more straightforward Computer Science major. The FSU ISM program has provided a program of study that is comparable to other programs within the field of Information Systems. The program has obtained faculty that appear to meet the qualifications of their positions and that also are dedicated to bringing real-world examples to the classroom. Mobile technologies and the ability to access data in almost real-time have changed the way organizations conduct business and the ISM program at FSU is well positioned to take advantage of this information-driven world.

Plans for program improvement, including timeline
Given the newly established program for the Information Systems Management degree was implemented in Fall 2010, there are no plans for major changes at this time with the exception of reducing the total required credit hours to 120 to meet the new degree definition policy.

Identification of weaknesses or deficiencies from the previous review and the status of improvements implemented or accomplished
The last review was performed in 2004 with no corrective actions mandated by the Board of Governors. At that time, the Information Systems Management Program was a concentration of Information Systems within the School of Business. In 2006, the Information Systems Program became a separate degree. The program curriculum was revamped in Fall 2010 and the program was renamed Information Systems Management to more accurately portray the emphasis of the degree. This is the first program review since the separation.

Five-year trend data on graduates and majors enrolled

Academic Year	Number of Enrollments	Number of Graduates
2006-2007	160	28
2007-2008	94	20
2008-2009	41	13
2009-2010	56	11
2010-2011	50	10
Total	401	72

Transition from BS Admin concentration

MAJOR in IS

Summary of assessment model and how results are used for program improvement
The ISM program has established course outcomes that directly map to the ISM Program Outcomes. The Program outcomes are associated with the mission of the School of Business within the University. Assessment at the course level varies by course and faculty but is intended to provide a consistent measure of students' success at meeting the stated outcomes. This data is used to review the program and identify and prioritize areas for improvement such that necessary adjustments can be made. In addition, other tools currently being used to assess the ISM program are: 1) Capstone Research Project, 2) Evaluation of Internship by Internship Mentor, 3) Graduate Student Exit Survey, and 4) Employer Response Surveys.

Data on student placement (for example, number of students employed in positions related to the field of study or pursuing advanced degrees)

Fifty-eight percent of ISM graduates responded to an alumni survey conducted during the Fall 2011 semester. Results revealed that 89.5% of responding graduates are employed and 42% of respondents have achieved additional certifications in the field.

Final recommendations approved by governing board

PROGRAM REVIEW

FAIRMONT STATE UNIVERSITY OR PIERPONT COMMUNITY AND TECHNICAL COLLEGE	
Program:	Bachelor of Science – Information Systems Management
School:	School of Business
Date:	February 2012

Program Catalog Description:

INFORMATION SYSTEMS MANAGEMENT

The Information Systems Management degree provides an academic program that balances business management principles and the tools and technologies of computerized information systems. The areas of study include the functional areas of business, computer hardware and operating systems, network architecture and management, programming concepts, database management techniques, e-commerce and web development strategy, systems analysis and design, and project management.

Students completing the B.S. in Information Systems Management degree will be able to compete for positions related to Information Systems (IS), Information Technology (IT), and Business. Specific job titles may include: IS and IT consultants, information systems managers, database and software consultants, logistics managers, system or project managers, and network support services.

BACHELOR OF SCIENCE IN INFORMATION SYSTEMS MANAGEMENT.....128 SEM. HRS.
Information Systems Management Curriculum (see below).....63 SEM. HRS.
General Studies Requirements.....44 SEM. HRS.
Free Electives.....21 SEM. HRS.

• Information Systems Management Curriculum.....63 SEM. HRS.

Required Courses (63 hrs.)

ACCT 2201 PRINCIPLES OF ACCOUNTING I	3
ACCT 2202 PRINCIPLES OF ACCOUNTING II	3
BISM 2200 BUSINESS INFORMATION TOOLS	3
BISM 2400 OPERATING SYSTEMS CONCEPTS	3
BISM 2600 INTRODUCTION TO NETWORKING ADMINISTRATION	3
BISM 2800 CORPORATE COMMUNICATIONS AND TECHNOLOGY	3
BISM 3000 BUSINESS PROGRAMMING LOGIC	3
BISM 3200 MANAGEMENT INFORMATION SYSTEMS	3
BISM 3400 DATABASE DESIGN AND DEVELOPMENT	3
BISM 3600 E-COMMERCE AND WEB DEVELOPMENT STRATEGY	3

BISM 3800 OBJECT-ORIENTED BUSINESS APPLICATIONS	3
BISM 4000 GLOBAL, ECONOMIC, ETHICAL, AND SOCIAL IS	3
BISM 4200 SYSTEMS ANALYSIS AND DESIGN	3
BISM 4400 CURRENT TOPICS IN INFORMATION SYSTEMS	3
BISM 4800 INFORMATION SYSTEMS PROJECT MANAGEMENT	3
BUSN 3306 BUSINESS LAW I	3
BUSN 3310 BUSINESS AND ECONOMICS STATISTICS	3
ECON 2202 ECONOMIC PRINCIPLES AND PROBLEMS II	3
FINC 2201 INTRODUCTION TO FINANCIAL MANAGEMENT	3
MKTG 2204 PRINCIPLES OF MARKETING	3
MGMT 2209 PRINCIPLES OF MANAGEMENT	3

MODEL SCHEDULE

FRESHMAN FIRST SEMESTER

ENGL 1104 WRITTEN ENGLISH I	3
ECON 2201 ECON PRIN. & PROB. I	3
BISM 1200 INTRODUCTION TO COMPUTING	3
GENERAL STUDIES - ARTISTIC/CREATIVE/INTERDISCIPLINARY ELECTIVE	3
GENERAL STUDIES - SOCIETY/HUMAN INTERACTION ELECTIVE	3
	15

FRESHMAN SECOND SEMESTER

ENGL 1108 WRITTEN ENGLISH II	3
ECON 2202 ECON PRIN. & PROB. II	3
COMM 2202* INTRO TO COMMUNICATION IN WORLD OF WORK	3
MATH 1112 COLLEGE ALGEBRA	3
FREE ELECTIVE	3
	15

**COMM 2202 is recommended for all School of Business students; however, COMM 2200 or COMM 2201 may also be used to satisfy this course requirement.*

SOPHOMORE FIRST SEMESTER

ACCT 2201 PRINCIPLES OF ACCOUNTING I	3
MGMT 2209 PRINCIPLES OF MANAGEMENT	3
BISM 2200 BUSINESS INFORMATION TOOLS	3
BISM 2400 OPERATING SYSTEMS CONCEPTS	3
GENERAL STUDIES - SCIENTIFIC DISCOVERY ELECTIVE	4
	16

SOPHOMORE SECOND SEMESTER

ACCT 2202 PRINCIPLES OF ACCOUNTING II	3
MKTG 2204 PRINCIPLES OF MARKETING	3
BISM 2600 INTRODUCTION TO NETWORKING ADMINISTRATION	3
BISM 2800 CORPORATE COMMUNICATIONS AND TECHNOLOGY	3
GENERAL STUDIES - SCIENTIFIC DISCOVERY ELECTIVE	4
	16

JUNIOR FIRST SEMESTER

FINC 2201 INTRO TO FINANCIAL MANAGEMENT	3
BISM 3000 BUSINESS PROGRAMMING LOGIC	3
BISM 3200 MANAGEMENT INFORMATION SYSTEMS	3
BISM 3400 DATABASE DESIGN AND DEVELOPMENT	3
GENERAL STUDIES - CULTURE/CIVILIZATION EXPLORATION ELECTIVE	3
FREE ELECTIVE	3
	18

JUNIOR SECOND SEMESTER

BUSN 3306 BUSINESS LAW I	3
BISM 3600 E-COMMERCE & WEB DEVELOPMENT STRATEGY	3
BISM 3800 OBJECT-ORIENTED BUSINESS APPLICATIONS	3
GENERAL STUDIES - CULTURE/CIVILIZATION EXPLORATION ELECTIVE	3
FREE ELECTIVE	3
FREE ELECTIVE	3
	18

SENIOR FIRST SEMESTER

BUSN 3310 BUSINESS & ECONOMIC STATISTICS	3
BISM 4000 GLOBAL, ECONOMIC, ETHICAL, & SOCIAL IS	3
BISM 4200 SYSTEMS ANALYSIS & DESIGN	3
GENERAL STUDIES - CULTURE/CIVILIZATION EXPLORATION ELECTIVE	3
FREE ELECTIVE	3
	15

SENIOR SECOND SEMESTER

BISM 4400 CURRENT TOPICS IN INFORMATION SYSTEMS	3
BISM 4800 INFORMATION SYSTEMS PROJECT MANAGEMENT	3
GENERAL STUDIES - ARTISTIC/CREATIVE/INTERDISCIPLINARY ELECTIVE	3
FREE ELECTIVE	3
FREE ELECTIVE	3
	15

MINOR IN INFORMATION SYSTEMS MANAGEMENT.....21 SEM. HRS.

Required Courses

BISM 1200 INTRODUCTION TO COMPUTING	3
BISM 2200 BUSINESS INFORMATION TOOLS	3
BISM 2800 CORPORATE COMMUNICATIONS AND TECHNOLOGY	3
BISM 3200 MANAGEMENT INFORMATION SYSTEMS	3

Select 9 hours from the following courses:

ACCT 3350 ACCOUNTING INFORMATION SYSTEMS	3
BISM 2400 OPERATING SYSTEMS CONCEPTS	3
BISM 2600 INTRODUCTION TO NETWORKING ADMINISTRATION	3
BISM 3000 BUSINESS PROGRAMMING LOGIC	3
BISM 3400 DATABASE DESIGN AND DEVELOPMENT	3
BISM 3600 E-COMMERCE AND WEB DEVELOPMENT STRATEGY	3
BISM 3800 OBJECT-ORIENTED BUSINESS APPLICATIONS	3
BISM 4000 GLOBAL, ECONOMIC, ETHICAL, AND SOCIAL IS	3

BISM 4200 SYSTEMS ANALYSIS AND DESIGN	3
BISM 4300 BUSINESS INTELLIGENCE	3
BISM 4400 CURRENT TOPICS IN INFORMATION SYSTEMS	3
BISM 4900 INTERNSHIP IN INFORMATION SYSTEMS	3

Recommended tracks for the Information Systems Management Minor:

IT Management Focus
BISM 2400 Operating Systems Concepts
BISM 2600 Introduction to Networking Administration
BISM 4900 Internship in IS
(must complete an IT-focused internship project as approved by ISM faculty)

E-commerce Focus
BISM 3000 Business Programming Logic
BISM 3400 Database Design and Development
BISM 3600 E-commerce and Web Development Strategy

Programming Focus
BISM 3000 Business Programming Logic
BISM 3400 Database Design and Development
BISM 3800 Object-Oriented Business Applications

IS Business Management Focus
BISM 4000 Global, Economic, Ethical & Social IS
BISM 4300 Business Intelligence
BISM 4400 Current Topics in Information Systems

Accounting Information Systems Focus
ACCT 3350 Accounting Information Systems
BISM 4000 Global, Economic, Ethical & Social IS
BISM 4400 Current Topics in IS (Accounting/Finance IS Issue)

General Information Systems Focus
Any combination of an additional 9 hours from the ISM minor course list

(Please refer to course descriptions for prerequisite information for courses listed above.)

VIABILITY (§ 4.1.3.1)

Enrollments:

Applicants

To major in Information Systems Management at Fairmont State University, an applicant must meet the institutional requirements for admission. There are no separate admissions requirements for the major. The general requirements for admission into the University for a bachelor's degree program include graduation from an approved high school with a 2.0 high school grade point average and a minimum composite score of 18 on the Enhanced American College Test (ACT) or 870 on the Scholastic Aptitude Test (SAT) or at least a 3.0 high school grade point average and SAT or ACT scores. Applicants must also satisfy the minimum high school unit requirements.

For full-time, first-time cohorts from Fall 2004 through Fall 2010, the average high school grade point average was 3.18, the average composite score on the ACT was 20.77, and the average SAT total score was 950.57.

Enrollment data for Information Systems Management majors by class rank from the 2006-2007 academic year through the 2010-2011 academic year is presented in Appendix I. The table presents declared majors at the end of the Spring semester for each academic year. The Information Systems Management major averaged 80 students, with a low of 41 majors in the 2008-2009 academic year and a high of 160 majors in the 2006-2007 academic year.

Graduates

The number of Information Systems graduates per academic year is also presented in Appendix I. The data in the table includes graduates of two degrees, the Bachelor of Science in Information Systems and the Bachelor of Science in Business Administration with a concentration in Information Systems. The Bachelor of Science in Business Administration with a concentration in Information Systems degree was discontinued in 2006 when Information Systems became a stand-alone program. As of Fall 2010, the Information Systems curriculum was revamped and the degree was renamed Information Systems Management. The number of Information Systems graduates averaged 14 students over the five year period, with a low of 10 graduates in the 2010-2011 academic year and a high of 28 graduates in the 2006-2007 academic year.

Graduates Exit Survey - Upon implementation of the new Information Systems Management Program in Fall 2010, an exit interview process was established with graduating seniors. The summary report of the results of this survey is presented in Appendix II. Eleven exit surveys have been completed to date. However, it should be noted that the students graduating from the program during the 2010-2011 academic year would have followed the old program requirements and therefore the results would not necessarily reflect opinions of the new program requirements. Students starting the new program will not be graduating until Spring 2014.

Twenty items were ranked on a scale of 1 to 5 with 1 rated as strongly disagree and 5 rated as strongly agree. The exit survey results were categorized into three main sections: overall impression of the program; participation in IS-related activities; and, professional development.

The results showed that the highest rated aspect of the overall impression of the ISM program was the quality of academic advising (4.27). Logic and flow of courses throughout the ISM program ranked lowest (3.00) for the overall impression category. However, the students surveyed would have been evaluating the program logic and flow of courses from the program prior to the new curriculum requirements. The new program curriculum was developed in recognition of problems with the logic and flow of the courses in the previous program requirements.

The participation in IS-related activities category received the lowest ratings of the three categories. The highest rated aspect was professional networking opportunities (3.55) and the lowest rated aspect of this category was undergraduate research opportunities (2.64). Undergraduate research has predominantly been conducted by faculty mentors and students through the Undergraduate Research and Summer Undergraduate Research Experience (SURE) programs at Fairmont State; however, these are competitive programs with a limited number of awards per year. Although ISM faculty members have actively participated in these programs, due to the competitive process, it is not available to all students. In an effort to provide real-life hands-on experiences in IS-related project environments for all students, the new capstone course (BISM 4800 Information Systems Project Management) was established. This course is conducted in collaboration with the Computer Science Senior Project course (COMP 4440 Software Engineering) to provide a collaborative multi-disciplinary project environment for every ISM student.

Two-thirds of the items in the professional development category were averaged at ratings greater than 4.00. The highest rated aspect was "I have developed the skills to communicate with a variety of audiences" (4.45). The results indicated that students felt they developed strong oral presentation skills (4.27) and can function effectively in a team environment (4.27). In addition, the results indicated that students felt positively in the development of their ability to analyze a problem, and identify and define the computing requirements appropriate to its solution (4.18) and in the development of their understanding of professional, ethical and social responsibilities (4.18).

Program Courses

The course enrollments for all courses in the Information Systems major and the Business Core are presented in Appendix III for the periods from 2006-2007 through 2010-2011 reflecting a total enrollment for the five year period of 22,796. As expected, the business administration core classes have the highest enrollment.

The Information Systems Management curriculum for the major was completely revamped and implemented in Fall 2010. The minor was reviewed and updated as of Fall 2011. The curriculum proposals for these efforts are presented in Appendix IV and V.

Service Courses

There are only two courses* in the Information Systems Management Program that are service courses which support other majors and programs across campus. The following table provides a list of the majors and programs that are supported by these two courses.

Course No.	Course Title	Programs Supported
INFO 2200	Fundamentals of Information Systems	PC&TC Business Technology (AAS) PC&TC Food Service Management (AAS) – Resort and Hotel Management PC&TC Office Management and Technology (AAS) FSU Aviation Technology (BS) – Aviation Administration FSU Information Systems (BS) FSU Business Administration (BS) FSU Business Education (BA)
INFO 2235	Microcomputer App. in Business	PC&TC Business Technology (AAS) PC&TC Office Management and Technology (AAS) FSU Information Systems (BS) FSU Business Administration (BS) FSU Business Education (BA)

*Note: There are proposals for several BISM courses (including 1200, 2200, and 2800) from the new ISM program currently being proposed as service courses to the Liberal Studies committee.

Service Rates for Service Courses

The student enrollment for the service courses by semester are presented in Appendix VI. As indicated by the enrollment data, Fundamentals of Information Systems (INFO 2200) and Microcomputer App. in Business (INFO 2235) are strong service courses that are frequently offered. The average enrollment for Principles of INFO 2200 is 251 students per academic year while the average enrollment for INFO 2235 is 331 students per academic year.

The service course success rates are also presented in Appendix VI. Success is defined as the number of students with satisfactory performance (A, B, C, or AU (audit)) as compared to all students who received a grade in the course (A, B, C, D, F, or W). Not included in the calculation are those students who dropped the course prior to the appropriate withdrawal deadline. The success rates for INFO 2200 range from 75% in the 2010-2011 academic year to 90% in the 2007-2008 academic year. The average success rate for this course is 84%. Likewise, the success rates for INFO 2235 range from 68% in the 2010-2011 academic year to 77% in the 2008-2009 academic year. The average success rate for this course is 73%.

Extension Education and Off Campus Courses

The Information Systems Management Program offers Fundamentals of Information Systems (INFO 2200) and Microcomputer App. in Business (INFO 2235 at several off campus locations including The Caperton Center in Clarksburg (Harrison County), Lewis County, Monongalia County, and Randolph County. These courses are also offered at Correctional Centers as well,

usually either the Pruntytown facility in Taylor County or the Kennedy facility in Monongalia County. The enrollment data for the off campus courses are presented in Appendix VII. The largest enrollments are at the Caperton Center, followed by Lewis County and Monongalia County. On average, 101 students are enrolled in INFO 2200 at off campus locations and 81 students are enrolled in INFO 2235 at off campus locations.

Cost per Student Credit Hour

	Fairmont State University - Total Instruction	School of Business Total
Total Labor & Expenses	19,109,037	1,934,357
Number of Organized Sections (w/ Census Enrollment >=5)		284
Organized Sections for Total Faculty Credit Hours		855
FTE Faculty		35.63
Total Enrollment in Organized Sections (FSU – All Sections)	46,729	6,623
Total Credit Hours in Organized Sections (FSU – All Sections)	129,932	19,898
Number of Majors* (FSU - All UG/GR Level Students including undeclared and non-degree)	5,812	1,024
Credit Hours Enrolled by Majors* (FSU - Total Credit Hours taken by all UG/GR Level Students)	123,698	23,053
FTE Majors* (FSU - UG/GR Level FTE-s)	4123.27	768.43
Direct Cost per Instructional Credit Hour	$147.07	$97.22
Direct Cost per Student FTE Major	$4,634.44	$2,517.52

Liberal Studies Requirements Met

The Information Systems Management Degree is in compliance with the degree definition policy of Fairmont State University. (Refer to Appendix VIII – B.S. Degree in Information Systems Management - Compliance with Degree Definition Policy)

Assessment Requirements

Along with the School of Business, the Department of Information Systems Management is committed to the following goals:

- *Quality Programs* - Provide rigorous and relevant programs that are intellectually and ethically grounded, innovative, integrative, technologically advanced, and global in perspective
- *Effective Teaching and Scholarship* - Collaborate with stakeholders to align our teaching,

scholarship, and service with the needs of the community.

- *Improved Community* - Serve as a primary source for creating and applying information systems management and application knowledge to promote regional economic development.

In order to ensure that these goals are being achieved, the Information Systems Management Program (formerly the Information Systems Program) has implemented a comprehensive assessment program. These reports have been generated using the programs self-study as submitted to ABET during the 2007-2008 academic year and School of Business's assessment report from the 2009-2010 academic year. The ABET Self-Study is presented in Appendix IX. A sample of course assessment plans and related artifacts are presented in Appendix X.

In the 2007-2008 academic year, seven program outcomes were identified for the Information Systems Program. Assessment findings were reported for the introductory courses and the technology component of the program outcomes. The recommendations for the first assessment cycle relate to the assessment measures and the self-study report prepared for the ABET program review. The outcomes for the Bachelor's degree in Information Systems were:

1. A solid foundation in the theory and application of information systems design, development, and management.
2. A background in the mathematics, computational tools, physical sciences, and business methods useful for information system professionals.
3. Opportunities for creative, original, and critical thinking in solving information systems problems.
4. Opportunities for development of strong verbal and written communication skills.
5. Development of a sense of professional ethics and of responsibility to the community.
6. An appreciation of interpersonal and management skills, teamwork, and an ability to work collaboratively.
7. Appreciation and understanding of the social, economic, political, and legal context in which professional activities are undertaken.

In the 2008-2009 academic year the program outcomes remained as the same seven identified during the 2007-2008 academic year.

During the 2007-2008 and 2008-2009 academic years, it was discovered that the course outcomes for the Information Systems program were inadequate in making accurate measures, and in some cases, impossible. Therefore, consistent evaluation of the program's effectiveness through the course outcomes was difficult. Based on this finding, and the fact that the Information Systems Program lacked a single purpose and focus, the recommendation was made to restructure the program, its courses, outcomes, and measures under the new program title, "Information Systems Management". The new set of Information Systems Management Program outcomes are:

1. Demonstrate a foundation of knowledge in the areas of business, computing and mathematics and the application of relevant technical skills (that supports and facilitates an appreciation of lifelong professional development).

2. Use critical thinking, and creative and logical analysis skills, strategies and techniques to solve complex business and information systems management problems.

3. An ability to communicate effectively with a range of audiences using oral, written, and electronic documentation skills.

4. Demonstrate a conceptual understanding of the overall context of national and international business as related to information systems management principles and standards and the ability to link theory to practice.

5. An ability to analyze the impact of computing on individuals, organizations and society, including ethical, legal, security and global policy issues.

6. An ability to function effectively on teams to accomplish a common goal.

The new Information Systems Management Program was implemented in the Fall of 2010. Standard assessment measures were adopted by fulltime faculty members for the introductory classes as these classes are taught by multiple instructors. The satisfactory performance standard and the ideal performance standard were changed to be more explicit and consistent across the program. All levels of program assessment (introductory, intermediate, and advanced) were reported in the annual assessment report. The results of this year's assessment indicated that many courses were being developed for the first time. Because of the overwhelming number of newly developed classes, it is impossible to determine if the program objectives are actually being achieved. This academic year was also split between two sets of courses within two different programs due to the phase-out of the old program. Therefore, the recommendations included waiting until the assessment results for the 2010-2011 academic years were achieved before taking any corrective actions.

The 2010-2011 academic year was the first full academic year of data collection and assessment under the new Information Systems Management Program. Although the assessment data was collected, we will be somewhat hesitant to use it to make permanent changes to the program due to the fact that it portrays the results for only one year, it is the implementation year for the new program with many new courses offered for the first-time, and there have been changes to the fulltime faculty. One faculty member is no longer with the program due to attrition, and a second faculty member has retired. The additional workload on the remaining three fulltime faculty members make it extremely difficult to achieve the stability necessary to draw conclusions about the program's effectiveness.

Advisory Board

As previously stated, one of the goals of the Information Systems Management Program is to encourage effective teaching and scholarship by collaborating with stakeholders to align our teaching, scholarship, and service with the needs of the community. In recognition of the importance of external constituencies in evaluating the effectiveness of the Information Systems Management Program, an Advisory Board for the Program of Information Systems Management

has been established and currently meets twice during the academic year (once in each semester). The role of the Advisory Board is to help us evaluate and improve the Information Systems Management Program at Fairmont State University. The Board also provides a vital link between the students and the "real world" of Information Systems Management. Board members are encouraged to bring their expertise and experience into the classroom and to the meetings of the Information Systems Student Organization (ISSO). The current membership of the Information Systems Management Program Advisory Board is presented in Appendix XI.

External Reviews

External reviews were provided by Mr. Jeff Tucker, Chief Technology Officer at Innovative Management and Technology Services (IMTS) and Mr. David Jones, Principal and Program Manager at SRA International, Inc. Mr. Tucker and Mr. Jones are active members on the ISM Advisory Board. In addition, Mr. Tucker has been an active collaborator with the ISM program through various initiatives such as internship mentor, BISM course project sponsor, technical reviewer for senior resumes, and committee member for the ISM faculty hiring committee. The external review letters are presented in Appendix XVII.

Adjunct Use

Courses taught through extension education and off campus locations use mostly adjunct faculty. In addition, the courses primarily taught by adjunct faculty are Fundamentals of Information Systems (INFO 2200) and Microcomputer App. in Business (INFO 2235). The course enrollments for courses taught by adjunct faculty as well as the percentage of the total course enrollment taught by adjunct faculty are presented in Appendix XII.

For Fundamentals of Information Systems (INFO 2200), the percentage of the total course enrollment taught by adjunct faculty ranged from 16% to 39. For Microcomputer App. in Business (INFO 2235), the percentage of the total course enrollment taught by adjunct faculty ranged from 14% to 39%.

Graduation/Retention Rates

The Information Systems Management graduates averaged 14 students, with a low of 10 graduates in the 2010-2011 academic year and a high of 28 graduates in the 2006-2007 academic year.

Specific data regarding student retention rates for the Information Systems Management Program are not available. However, Appendix XIII includes Fairmont State University retention and graduation data for first time, full time freshman from 1994 – 2010, fall semester transfer-in students from 2004 -2010, and re-admits and other students from fall semester 2004 – 2010.

Previous Program Review Results

The last review was performed in 2004 with no corrective actions mandated by the Board of Governors. At that time, the Information Systems Management Program was a concentration of Information Systems within the School of Business. In 2006, the Information Systems Program became a separate degree. The program curriculum was revamped in Fall 2010 and the program was renamed Information Systems Management to more accurately portray the emphasis of the degree. This is the first program review since the separation.

ADEQUACY (§ 4.2.4.2)

Program Requirements:

	Allowed Range	Information Systems Management Program	Comments
Liberal Studies	32 -42 hours	44 hours	See Program
Major	32-65 hours	63 hours	Catalog Description
Electives	Minimum 21 hours	21 hours	For Complete List
TOTAL	Maximum 128 hours	128 hours	

Faculty Data

Faculty data sheets for all full time faculty members are provided in Appendix XIV.

Accreditation/National Standards

The School of Business was granted full accreditation by the Association of Collegiate Business Schools and Programs (ACBSP) on November 29, 2004 (Appendix XV). This accreditation is valid until the ten-year reaffirmation self-study, which will be due in 2015.

The Information Systems Management Program was still a concentration of Information Systems under Business Administration when the accreditations were received from IACBE and ACBSP. Thus, the program is accredited. The accrediting bodies have been advised that the Information Systems Management Program is now a separate degree, but the accreditation remains intact until the appointed time for reaccreditation.

NECESSITY (§ 4.1.3.3)

Placement

As with the other majors across campus, the Fairmont State University Office of Career Services is responsible for all job placements. The office contacts prospective employers for all graduates and organizes on-campus interviews for students. In addition, the Information Systems Management program seeks to develop relationships with local businesses, especially regarding internship placements that often lead to employment opportunities for our graduates.

Alumni Survey - An alumni survey was conducted in Fall 2011. Thirty-three graduates from 2009 through 2011 were surveyed. The response rate was fifty-eight percent (58%). The following summarizes the survey results.

ISM Alumni Survey Results (2009-2011)

Year	Total Grads	Total Response	Total Employed	% Employed	Total Certified	% Certified
2009	16	7	6	85.7	4	57.1
2010	7	5	5	100.0	3	60.0
2011	10	7	6	85.7	1	14.3
Totals	**33**	**19**	**17**	**89.5**	**8**	**42.1**

Employer Survey - An employer response survey was established during the 2011-2012 academic year. Only six surveys have been received to date (Appendix XVI). Twenty-three items were ranked within six categories (teamwork, self-management, communication skills, problem-solving, initiative and technical skills). Each item was ranked on a scale of 1 to 5 with 5 being the highest positive score possible for any item.

Of the twenty-three ranked items, the majority (54%) was rated greater than or equal to 4.00. The results indicate the highest ranked categories were technical skills (overall average rating for category items = 4.46) and self-management (4.03).
The category with the lowest average rating was initiative (3.60). Within this category, the lowest ranked item was sets and communicates goals and follows up with results (2.83). This was the only item on the survey that received a rating less than 3.00. This issue was discussed and addressed with the implementation of the new ISM curriculum. A focus on independent active learning is established from the first course (BISM 1200 Introduction to Computing). Expectations are significantly higher than the previous INFO 1100 course which provided step-by-step Office application activities. The new course requires critical thinking and application of content presented in the classroom. Students are taught how to find resources to complete activities as opposed to being given step-by-step instructions.

Employers were also asked to rank the ISM graduates as compared to graduates from other programs in similar positions. One-third responded our graduates ranked in the top 5%; one-half responded in the top 25%; and all responses were at least in the top 50%. Employers were asked to discuss whether their expectations were met or exceeded by FSU Information Systems

graduates. Two-thirds of the responses indicated that expectations were exceeded. All survey responses indicated that expectations were at least met. Finally, employers were asked for insights as experienced professionals, and specific recommendations to better prepare ISM students for the workplace (i.e., courses, activities, skills acquisition, programs). The following is a summary of the responses.

- Encourage students to participate in extended internships would be great as a tool for our students to transition to jobs in the work world, allowing students to demonstrate that they've worked in a professional IT environment beyond the walls of a classroom or lab. It also allows students to see the differences between theory and lab projects, and what is expected of professional-level development and work.
- It might be a good idea to consider different "tracks" through the program. A systems administration track, as well as a business programming track, might be two areas of practical outcome.
- Being a business-oriented technical program, I'm unsure what percentage of graduated go on to pursue a graduate degree, but it should be something that we encourage in our graduates.
- I would recommend that students are required to demonstrate communication skills, specifically being able to communicate concisely in a face-to-face situation.
- Many employee qualities we value derive from a person's upbringing more so than their educational experience. Beyond FSU providing a good technical foundation, any team-oriented experiences could be useful because most of our work is done in teams.
- Business is not just working with data or programs, it also includes presentation. As a suggestion, I would implement some web-design, Photoshop, and probably some e-commerce.
- Better understanding of labor markets and salaries. Often they have higher expectations of salary.
- More hands-on projects and exercises to help employers gauge their knowledge.
- Better overall communication skills – Both oral and written.
- Better understanding of requirements for jobs that require security clearances and the time it takes to acquire a clearance.
- They need help in conveying their skills on their resumes.

Similar Programs in West Virginia

There are no other Information Systems Management degree programs in WV. However, there are several Management Information Systems (MIS) degree programs offered throughout the state. The main difference between Information Systems Management programs as compared to the MIS programs is the level of focus on technology versus business concepts. MIS degrees are more heavily business-based programs as compared to the Information Systems Management program at Fairmont State University which is a hybrid of the business and technical computing concepts.

Management Information Systems (MIS) Bachelor's Degrees are offered at West Virginia

University, West Virginia University Institute of Technology, Marshall University, Davis & Elkins College, and Alderson Broaddus College. The last two are private schools with significantly higher tuition than Fairmont State. Compared to West Virginia University and Marshall University, we offer much smaller classes, most of which are taught by full time faculty members. It is due to the smaller class classes and close personal attention from faculty that many students transfer to Fairmont State from larger universities. Many students can live at home and commute to class. They can also work part time in the local communities to offset the cost of their education.

In addition, the Information Systems Management Program at Fairmont State offers students a significant experiential learning opportunity through our Information Systems Student Organization (ISSO). During the past five years, the ISSO established the Computer Repair Center (CRC). Students have the opportunity to work in the CRC to gain hands-on experience with computer repair and maintenance, handling the business information systems, interacting with customers, and gaining leadership and management skills in a working environment. The funds raised from this initiative have been used to establish a competitive ISSO Scholarship fund. Two-thousand dollars were awarded to ISSO students at the end of the 2010-2011 academic year based upon established academic criteria and level of participation in ISSO.

Need new employee to develop more internship opportunities.

CONSISTENCY WITH MISSION (§ 4.1.3.4)

Fit with Mission of Institution and Relationship to Other Programs

The Information Systems Management degree program supports the mission of Fairmont State University by providing students with a comprehensive Information Systems Management curriculum that is designed to provide students with the skills necessary to enter today's workforce or to pursue graduate education. The B.S. in Information Systems Management trains students in the traditional information systems fields of systems analysis, database management, network administration, project management, and e-commerce. Moreover, the program also incorporates the dynamic skill set required of today's business professionals by requiring proficiency in critical thinking, communication, technology, business, and ethics.

In addition to the traditional day class schedule, the program offers evening and weekend classes in order to serve non-traditional student populations in the immediate area. To serve non-traditional students in the surrounding communities, introductory Information Systems Management courses are available in various off campus locations throughout north-central West Virginia. Likewise, the Information Systems Management program supports numerous other degree programs at both Fairmont State University and Pierpont Community and Technical College. (See the discussion of Service Courses for a complete listing of majors and programs supported by the Information Systems Management Program).

Finally, the Information Systems Management Program strives to emphasize and demonstrate our commitment to community service through our Computer Repair Center on campus. Participating students can have an immediate and meaningful impact on the lives of people in community while gaining significant professional experience. As such, the program directly supports the institutional mission of responsible citizenship that supports the common good.

APPENDIX I

Information Systems Management Majors
Enrollments and Graduates

INFORMATION SYSTEMS MANAGEMENT ENROLLMENTS BY ACADEMIC YEAR

Academic Year	Number of Enrollments
2006-2007	160
2007-2008	94
2008-2009	41
2009-2010	56
2010-2011	50
Total	401

INFORMATION SYSTEMS MANAGEMENT GRADUATES BY ACADEMIC YEAR

Academic Year	Number of Graduates
2006-2007	28
2007-2008	20
2008-2009	13
2009-2010	11
2010-2011	10
Total	72

APPENDIX II

ISM Exit Survey of Graduates

Information Systems Department
Student Exit Interview Survey

Overall Impressions of the Information Systems Program Answer the following questions on a scale of one (1) to five (5) where: 1 = Not Applicable, 2 = Poor, 3 = Fair, 4 = Good, 5 = Excellent					
1. Quality of Instruction	1	2	3	4	5
2. Quality of Computing Facilities and Equipment	1	2	3	4	5
3. Availability of Computing Facilities and Equipment	1	2	3	4	5
4. Quality of Academic Advising	1	2	3	4	5
5. Accessibility of Faculty Outside of the Classroom	1	2	3	4	5
6. Logic and Flow of Courses throughout the IS Program (i.e., logical transition of classes and integration of topics)	1	2	3	4	5
Participation in Information Systems-related Activities Answer the following questions on a scale of one (1) to five (5) where: 1 = Not aware, 2 = Aware but did not participate, 3 = Bad Experience, 4 = Neutral, 5 = Good Experience					
7. Undergraduate Research Opportunities related to IS	1	2	3	4	5
8. Student Internship Opportunities related to IS	1	2	3	4	5
9. Information Systems Student Organization (ISSO)	1	2	3	4	5
10. Professional Networking Opportunities in IS	1	2	3	4	5
11. Professional Development Opportunities	1	2	3	4	5
Professional Development Answer the following questions on a scale of one (1) to five (5) where: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree					
12. With the knowledge gained at FSU, I feel well prepared to enter the workforce.	1	2	3	4	5
13. I feel I have the ability to function effectively in a team environment.	1	2	3	4	5

14. I have developed strong technical writing skills.	1	2	3	4	5
15. I have developed strong oral presentation skills.	1	2	3	4	5
16. I have developed the skills to communicate with a variety of audiences (i.e., layman, professional, technical, etc.).	1	2	3	4	5
17. I developed the ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.	1	2	3	4	5
18. I developed the understanding of professional, ethical and social responsibilities.	1	2	3	4	5
19. I plan to engage in continuing professional development activities throughout my career.	1	2	3	4	5
20. If I plan to further my educational career, I will consider Fairmont State.	1	2	3	4	5

Please respond to the following questions:

21. How did you learn of the Information Systems program at FSU?

22. Why did you choose the Information Systems Program at Fairmont State University?

23. In your opinion, what are the two strongest aspects of the FSU Information Systems program?

24. In your opinion, what are the two areas which need the most improvement in the FSU Information Systems program?

25. What topics/subjects/courses had you hoped to learn about that were not covered or offered through the FSU Information Systems program?

26. When did you begin the job search process?

27. Explain your job search process.
(i.e., online applications such as monster.com, personal networking, mailing applications, etc.)

28. How many applications have you submitted?

29. How many job offers have you received related to IS?

30. Have you accepted a position to start upon graduation? *If so, please answer the following:*
    a. Company Name:
    b. Position Title:
    c. Starting Salary Range:
        i. Less than $30,000
        ii. $30,000 to $40,000
        iii. $40,000 to $50,000
        iv. $50,000 to $60,000
        v. $60,000 to $70,000
        vi. $70,000 to $80,000
        vii. Greater than $80,000

31. Do you have any plans to pursue graduate school? If so, what are your top three areas of interest (such as Masters of Business Administration, Masters in IS, etc.)?

32. Have you applied to graduate school? If so, please list the institution(s), the degree, and the status of each application (i.e., pending, accepted, denied).

33. Please provide any additional feedback you have related to your experiences with the Information Systems Program.

Information Systems Management Program - Exit Survey Results

11 students responded

Student Response	1	2	3	4	5	6	7	8	9	10	11	Avg Response
Overall Impressions of the IS Program												
1. Quality of Instruction	4	1	5	4	4	3	4	3	4	5	3	3.64
2. Quality of Computing Facilities and Equipment	5	1	5	4	5	4	4	3	4	4	4	3.91
3. Availability of Computing Facilities and Equipment	4	1	5	4	5	5	5	2	3	4	5	3.91
4. Quality of Academic Advising	3	4	5	5	5	4	5	4	4	5	3	4.27
5. Accessibility of Faculty Outside of the Classroom	3	2	5	4	4	3	5	4	3	4	3	3.64
6. Logic and Flow of Courses throughout the IS Program (i.e., logical transition of classes and integration of topics)	3	1	4	3	3	3	4	3	4	3	2	3.00
Participation in IS-related activities												
1. Undergraduate Research Opportunities related to IS	1	2	4	4	2	2	4	2	2	5	1	2.64
2. Student Internship Opportunities related to IS	5	1	3	4	5	1	4	2	5	5	3	3.45
3. Information Systems Student Organization (ISSO)	1	1	5	5	2	4	5	n/a	2	4	1	3.00
4. Professional Networking Opportunities in IS	4	1	4	4	4	4	4	2	4	4	4	3.55
5. Professional Development Opportunities	4	1	5	4	1	1	5	3	5	4	4	3.36
Professional Development												
1. With the knowledge gained at FSU, I feel well prepared to enter the workforce.	3	2	5	4	3	5	5	2	3	4	2	3.45
2. I feel I have the ability to function effectively in a team environment.	5	1	5	3	5	5	5	3	5	5	5	4.27
3. I have developed strong technical writing skills.	4	2	4	5	4	3	5	3	5	3	5	3.91
4. I have developed strong oral presentation skills.	4	3	4	4	5	4	5	4	5	5	4	4.27
5. I have developed the skills to communicate with a variety of audiences (i.e., layman, professional, technical, etc.).	4	3	5	5	4	4	5	4	5	5	5	4.45
6. I developed the ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.	4	2	4	4	5	5	5	4	4	5	4	4.18
7. I developed the understanding of professional, ethical and social responsibilities.	5	2	4	4	4	5	5	5	4	4	4	4.18
8. I plan to engage in continuing professional development activities throughout my career.	5	3	4	5	4	5	4	5	4	5	4	4.36
9. If I plan to further my educational career, I will consider Fairmont State.	2	1	4	3	2	5	5	4	4	4	3	3.36

How did you learn of the Information Systems Program at Fairmont State University?

1. I learned of the program from another student already enrolled in the program.
2. I stumble on it.
3. Through the Find it Book
4. I did not know about Information Systems at all until I was told by an adviser that did my scheduling when I was a freshman. That is how I found out.
5. A fellow high school student told me that he was going to study Information Systems at FSU.
6. It was in 2001, my major was Accounting, I started checking with other people about careers, and I just decided on my own to change to Information Systems.
7. I took Dr. Blankenship for a class, and he informed me what Information Systems was and what you can do with it.
8. Fairmont State Website
9. I learned of the IS program at FSU through my college roommate, who was a CS major.
10. I was originally a Computer Science major. I did not feel that is what I wanted to do for a living but I still wanted a field where I am surrounded by technology and still may use programming skills. I talked to some people in the field and it really interested me.
11. From my Hardware and Networking teacher at the Marion County Tech Center

Why did you choose the Information Systems Program at Fairmont State University?

1. I like technology and felt the IS program was a good fit for me. I gained education in both business and technology.
2. Few other choices fit me.
3. Because I was interested in computers and I liked everything it had outlined
4. It is a growing profession that mixes business and technology. The pay rate in most cases for IS related jobs are high and there are a lot of opportunities since it is a growing discipline in the workforce.
5. Because I wanted to go to school close to home and I felt that WVU was too large for me to survive. I chose the IS program because I did not believe that I would be able to successfully complete the math requirements for the Computer Science major.
6. I started at FSU because it had more evening classes and offered at Mon Tech, the school was cheaper and had smaller classes than WVU.
7. I like computers, but I wanted no part in computer science, so I decided to do IS.
8. Originally was a Nursing major but needed a Plan B.
9. I decided to declare as an IS major because I liked business and I liked computers, and I thought it would be the best major to choose to get some of both.
10. I picked Information Systems because it seemed to cover the material that I needed to become a professional in the field I want to peruse. I have always had a strong passion for business requirements and technology.
11. It seemed like a logical choice, as I wanted the four year in I.T. at the time.

In your opinion, what are the two strongest aspects of the FSU Information Systems program?

1. Small classroom setting is a strong point of the program. This allows professors to work more personally with students which can help improve the learning process.
2. There are none. The only aspect of the IS program that I have high hopes for is the new curriculum. I hope that with the new system in place; the overall quality of the program will improve as well.
3. The staff and ISSO
4. • Excellent advising, I never had trouble with any of the professors in the IS program here. They have helped me out when I needed it and I never heard a word of complaint if they were busy and I needed to see them on short notice. • I also believe the faculty does a good job with their respective classes they teach. They have a good mixture of lecture, book work, lab work, projects, and presentations. I feel even through the classes that I have developed professional quality skills.
5. 1. The friendliness and ease-of-access of Faculty members 2. I believe it provides most of the technical classes that you would need in order to start a career in the IT field.
6. The degree of learning , and opportunities available to students.
7. 1- The teachers are very knowledgeable 2- The teachers are willing to help and they are very easy to reach if you have a question
8. Professors are good and Academic Advising was very good
9. Without a doubt, the two strongest aspect of the FSU IS program are conceptual and problem solving education. The program teaches students to be good problem solvers, whether they know everything about a problem or not, they learn how to be good at solving problems in general. Students also gain a lot of knowledge about IS concepts. Students are educated on a lot of different topics that will likely be helpful when they enter the workforce, including programming, database management, systems analysis, etc.
10. The great instructors and advisors play a major role in the program. Dr. Joseph Blankenship has always treated me with respect and been very informative with any problems or concerns. I have never had any issues with any instructors in the Information Systems program. It has been a positive experience.
11. The facilities and its alliance with the School of Business

In your opinion, what are the two areas which need the most improvement in the FSU Information Systems program?

1. Classroom work and structure needs to be more organized. I have often felt many of my classes were disorganized. Also, I feel like business tools related to IS needs to be taught to students.
2. All areas need improvement.
3. Some of the classes like HTML I think there needs to be more actual HTML taught, and more help from the Dean's office with getting our major things they deserve(like a lounge for example)
4. • There needs to be more open facilities. This semester they had a room for IS students but it was taken away. I would strongly suggest that they keep pushing to get an open lab of their own for the IS students. Because to me it would be a great chance for all the students to get to know each other and it would increase the retention of the IS students by having a place to find help or to just hang out during their down time.
   • I believe there needs to be more group based projects and work, or projects that encourage the students to help each other out. When you get into the real business world, one of the skills that you need to have is the ability to work as a team within an organization. I just feel that my collaboration skills are not where they need to be while I am graduating.
5. 1. A larger variety of tech courses need to be offered (i.e. Linux, Server Administration, Java, etc..) 2. I do not believe that an internship should be required to graduate. This puts too much strain on students that depend on their current jobs in order to pay their rent and other expenses.
6. The higher classes need to be more nontraditional friendly, it is really hard for someone that works to be at an early class and leave work. The internship information needs to be orderly, and acknowledged a semester ahead of time.
7. 1- The labs need better computers, it is a scary thought when you are in visual basic and your computer shuts off out of nowhere. 2- I think the classes need to be offered more time than once a semester to give the students a little lean way in there schedule.
8. The Flow of the courses and amount of courses offered.
   There needs to be more sections of courses offered and more online alternatives to the courses. The program needs to be useful to current professionals that work full time. Scheduling classes is difficult because they are mostly offered on the same day at the same time.
9. In my opinion, the area that needs the most improvement in the FSU IS program is the education of technical skills. For example, the Operating Systems class teaches a great deal about different Operating Systems, but I think it would serve the students well to be able to get some experience with different Operating Systems before going into the workforce where they may be expected to have experience with a certain Operating System. This is also true for databases. I feel, that while it is helpful for understanding database logic to use Microsoft Access, it may be helpful to use other types of databases, such as: Oracle, Microsoft SQL Server, MySQL, etc. It is my understanding that a student will be more likely to encounter other types of databases than Access databases, once in the workforce.
10. The availability of sections for classes because it is really hard to make a schedule for a student who also works. It would be nice to have some projects that cross over into other departments like accounting, marketing, or computer science.
11. Advising and Teaching with an emphasis on the curriculum. Also better programs that are used in the outside world.

What topics/subjects/courses had you hoped to learn about that were not covered or offered through the FSU Information Systems program?

1. IS tools used in the corporate world, like SAP, Remedy, SharePoint, etc…
2. Web Design, other languages need to be covered in the program.
3. The one I wish we had learned more about was HTML we did not covered as much as I would of liked.
4. Though there is a class that offers Project Management related materials, I believe that it should be split into two classes so that more can be covered. I think that it would make for a better final project at the end of the second class as well. I was very disappointed when I was not taught how to program with ASP.NET. I believe the course should be brought back because there is not enough Web development type classes offered here at FSU.
5. I would have very much liked to have learned ASP.net. The INFO 3340 course used to teach this, but it has now been turned into an e-commerce course that covers very little useable tech skills. I would have also liked to have had a course on operating systems where I could have gained experience with Linux, Unix, Mac, etc.. Finally, I wish that the Visual Basic courses were replaced with Java or some other language that is used more often in the "real world". I do not believe Visual Basic is used very much in the IT field anymore.
6. I would have liked to learn more of the updated information of doing websites, such as Java, Photoshop, Adobe, xml, Dreamweaver, and content management.
7. I fell that everything that I hoped to learn from this institution was learned.
8. Java Programming, XML, More Web Design/Development, SharePoint, Linux/Unix
9. When entering the program, I thought there might be some courses that focused on web technologies. There is an E-Commerce class, and it is educational, but it focuses on E-Commerce concepts. I expected there to be a class (or classes) that focused on web-related technologies like HTML, JavaScript, etc. It seems like having a basic understanding of these types of topics would be helpful, the same way that having a basic understanding of general programming in Visual Basic or C++ is helpful.
10. I would have like to learn more about Oracle and SQL. The only class that it was touched on it was BISM-4200 and BISM-3400. I would have like to see more integration with Oracle and SQL instead of Access.
11. Anything with Oracle and Linux

When did you begin the job search process?

1. I begin searching for an internship after my sophomore year. I have actively searching for a job since I started my internship.
2. Last Semester
3. I have always worked so for me I'm always looking
4. I have been looking at a few jobs for the past month or so.
5. I do not graduate until the end of July 2010. Therefore, I have not really started the job search yet. I do not believe that many employers would be willing to wait 2 months to hire me.
6. I have worked all through school and I have used information from each semester to help get an upgrade and more information systems responsibilities
7. I started applying for Internships when I was entering my last year, and I will start applying for jobs next month, January 2012.
8. September 2010
9. I have not searched extensively for a job after graduation. Prior to this semester, while searching for an internship, I got an idea of a few places to send resumes once I graduated, but none of them seemed interested until I had a degree. One such place is the Triune Group, which has a branch office in Flatwoods, WV.
10. My third year of schooling at Fairmont State University was when I started looking.
I started researching local opportunities in the Information Systems related fields.
11. This semester

Explain your job process.

(i.e., online applications such as monster.com, personal networking, mailing applications, etc.)

1. Searched classified, monster.com and FSU's career services. I found my current job by searching the company's website for career opportunities.
2. Monster.com indeed.com
3. Online looking and uploading resumes, plus in person
4. They were internships that I was told about and given contact information. So personal networking.
5. N/A
6. N/A
7. I have uploaded my resume to Monster.com and I am doing personal networking here at Mylan, as well as applying to a lot of positions on the Mylan Website.
8. I have a profile on Monster, Indeed, and CareerBuilder. I receive daily job alerts from these sites.
9. As I have not searched extensively, I would not say I have established a specific process.
10. I turned in applications to any opportunity that seems close to what I wanted to pursue and thought that would help build my resume. I went to corporate sites and stayed in touch with students that have graduated in previous classes.
11. Online searches only. No one does walk ins anymore.

How many applications have you submitted?

1. I have submitted 6 applications to date.
2. 3 at least
3. At least three or four
4. I have not submitted any so far.
5. 0
6. I have not submitted applications, I plan on staying in the area I am currently in for now.
7. I would say that I have submitted about 10 applications so far, and I will be doing much more in the upcoming months
8. 100 +
9. None.
10. 4
11. Very many. 20-25

How many job offers have you received related to IS?

1. I have received 4 jobs offers related to IS.
2. None yet
3. None yet
4. I have one job offer that is related to IS.
5. 0
6. I have received and increase in my responsibilities for IS, and I am currently in the process of an upgrade.
7. I have only received one offer in the IS world so far, my Internship.
8. None
9. None.
10. 2 It is hard to find a IS related internship because companies do not seem to like giving that responsibility to Interns. Most opportunities I found out about where more Information Technology related
11. Zero Job Offers. 5-8 interviews

Have you accepted a position to start upon graduation?

If so, please answer the following:

	Company Name	Starting Salary Range	Position Title
1. No, have not committed to an offer yet.	n/a	n/a	n/a
2. No answer…..	n/a	n/a	n/a
3. No answer…	n/a	n/a	n/a
4. No.	n/a	n/a	n/a
5. No	n/a	n/a	n/a
6. No answer	WVU	Not sure yet.	Not sure of title yet
7. No	n/a	n/a	n/a
8. No answer…	n/a	n/a	n/a
9. No.	n/a	n/a	n/a
10. No	n/a	n/a	n/a
11. No	n/a	n/a	n/a

Do you have any plans to pursue graduate school?

If so, what are your top three areas of interest (such as Masters of Business Administration, Masters in IS, etc.)

1. I do have plans to pursue graduate school and my only area of interest in a Masters of Business Administration.
2. I am considering continuing my education in the master's program for ISM
3. Not sure but Business Administration would be
4. I do if I have trouble finding a job, or if my salary will be substantially higher within an organization that I work for by gaining a Masters degree. One place I really want to consider is a Masters in IS with Carnegie Mellon in Pittsburgh.
5. No
6. No
7. I am considering getting my MBA degree, either from Fairmont State or WVU.
8. Yes, Masters in Software Engineering or Masters of Education in Online Learning . I have been accepted to FSU for the Masters of Education in Online Learning program but have not yet been accepted to WVU.
9. I do not plan to attend graduate school.
10. I have considered pursuing a masters but first I would like to get a job or career in a IS related field first. I have thought about pursuing ether a Masters of Business Administration or a Masters in Information Systems.
11. As of right now, I will not pursue a graduate degree

Have you applied to graduate school?

if so, please list the institution(s), the degree, and the status of each application (i.e., pending, accepted, denied)

1. I have not applied.
2. Not yet, I would like to get a job with an employer that offers education reimbursement.
3. No answer....
4. No.
5. No
6. No
7. No
8. Yes – FSU Masters of Education in Online Learning – Accepted
   Masters of Instructional Design and Technology – West Virginia University - Pending
9. I have not applied to any graduate schools.
10. No, I have not applied to any graduate schools.
11. No

Please provide any additional feedback you have related to your experiences with the Information Systems Program.

1. No answer…
2. ISSO is more a novelty and not as influential as it could be. If students were given more control over it rather than it being run by faculty it might grow into something more, perhaps not. However, many changes need to be made before it can evolve. otherwise I feel it will not survive.
3. I feel Dr. Giorcelli is great at what she does with the program. She has been very helpful in my four years at the college being my advisor and teacher without her I don't know if I would of graduated.
4. No answer…
5. Overall, I think the IS program is a pretty good program. I would like to see some of what I call 'useless classes' cut from the program and replaced with better ones. For example, I do not really see a true purpose to courses like international business, Finance, and Accounting II. Although these courses may be beneficial, I do not think they fit well into an IS program. The IS program does have some of the best faculty members around, and I would like to see many of them stay with the institution. Dr. Wilson is treats his students like he would his own children. He tries to instill personal values in them while still educating them on the subject of the course. Dr. Lee is a genius and is one of the most fun professors to take. Dr. Giorcelli is also very intelligent and was probably the most challenging instructor I had at Fairmont State. I believe it is these challenging instructors that really teach you the most. Finally, I still remember Donna Snyder from my freshman year. Even though I had her 4 years ago, I still remember her well and she still stands out as one of my favorite instructors.
6. I have learned a lot throughout my years with IS Program, I didn't have a clue about a lot of things that were taught but I learned and it was a long hard process, but I made it through it.
7. I really enjoyed the IS program at Fairmont State. I really like all of the teachers and the facility as well.
8. No Answer…
9. Overall, I think the FSU IS program, is a pretty good program, and I think it has been improved by the change to the BISM program.
10. The majority of my experience at Fairmont State University has been a positive one. I really appreciated how the instructors always tried to treat the students with respect. I like the fact the instructors are always approachable.
11. I would have enjoyed the process more had the entire curriculum not been changed halfway through my Junior year. To make matters worse, I felt as though my interests were not looked after when these changes were made. I received little information about the changes and I had to fight to get many of my classes scheduled. To be honest, I almost transferred. It was poorly executed to say the least.

Lastly, get off Microsoft Access and Visual Basic. Not one company I've applied for has asked for experience in either of those programs. I've even had employers laugh when they read Microsoft Access experience on my resume, twice

APPENDIX III

Total Course Enrollments

COURSE ENROLLMENTS

INFORMATION SYSTEMS MANAGEMENT MAJOR AND BUSINESS CORE CLASSES

		2006-2007		2007-2008		2008-2009		2009-2010		2010-2011		Total
Course	Course Title	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	
BISM 1200										24	36	60
BISM 1400											32	32
BISM 2200										15	12	27
BISM 2400										25		25
BISM 2600											15	15
BISM 2800												0
BISM 3000										20		20
BISM 3200											5	5
BISM 3400										26		26
BISM 3600											17	17
BISM 3800											17	17
BISM 4000										8		8
BISM 4200										6		6
BISM 4300										1	1	2
BISM 4400										12	10	22
BISM 4800											10	10
BISM 4900										5	2	7
BISM 4998										1	1	2
INFO 1199	Special Topics				7	10	58	3	35			113
INFO 2200	Fundamentals of Information Systems	123	122	98	141	154	124	139	162	95	92	1,250
INFO 2235	Microcomputer App. in Business	180	161	165	144	148	233	178	156	127	136	1,628

		2006-2007		2007-2008		2008-2009		2009-2010		2010-2011		Total
Course	Course Title	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	
INFO 3310	Systems Analysis and Design		21	13	7	13	4	10	10			78
INFO 3339	Programming, Data and File Structures	24	20	16		5	5	13	3			86
INFO 3340	Advanced Application Development	12	16	13	18	9	7	5	11			91
INFO 3350	Internship in Information Systems	13	15	11	7	32	14	4	5			101
INFO 3399	Special Topics	4										4
INFO 4420	Database Design & Implementation		26		19	1	5		13			64
INFO 4430	Advanced Topics in Information Systems	19	5	20	11	15	10	4	7			91
INFO 4998	Undergraduate Research						2		1			3
ACCT 2201	Principles of Accounting I	350	140	306	149	320	147	278	157	255	161	2,263
ACCT 2202	Principles of Accounting II	84	203	82	199	75	177	89	158	44	147	1,258
BUSN 3306	Business Law I	187	107	135	121	150	118	143	100	145	96	1,302
BUSN 3307	Business Law II	65	67	36	46	55	67	30	58	48	39	511
BUSN 3310	Business & Economics Statistics	161	134	119	106	112	79	107	89	83	65	1,055
BUSN 3320	International Business	99	89	124	91	102	91	123	95	80	52	946
BUSN 4415	Strategic Mgmt & Policy	71	86	102	90	104	91	70	66	73	92	845
ECON 2201	Economic Principles & Problems I	273	126	255	124	222	80	201	50	192	85	1,608
ECON 2202	Economic Principles &	64	126	86	116	99	122	84	105	45	131	978

		2006-2007		2007-2008		2008-2009		2009-2010		2010-2011		Total
Course	Course Title	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	
	Problems II											
FINC 2201	Introduction to Financial Mgmt	140	133	97	119	113	126	84	129	120	137	1,198
INFO 2200	Fundamentals of Information Systems	123	122	98	141	154	124	139	162	95	92	1,250
INFO 2235	Microcomputer App. in Business	180	161	165	144	148	233	178	156	127	136	1,628
MGMT 2209	Principles of Management	221	176	210	170	275	166	269	263	232	250	2,232
MKTG 2204	Principles of Marketing	142	208	188	216	188	208	199	179	202	182	1,912
	Total	2,535	2,264	2,339	2,186	2,504	2,291	2,350	2,170	2,106	2,051	22,796

APPENDIX IV

Information Systems Management
Major Curriculum Proposal

INFORMATION SYSTEMS CURRICULUM PROPOSAL

Proposal Number: 09-10-06

Academic Unit: School of Business
Information Systems Department

Contact Person: Rebecca Giorcelli, Information Systems Program Coordinator
rgiorcelli@fairmontstate.edu

Telephone Extension: 4724

Department Faculty: Joe Blankenship, Frank Lee, Roger Wilson

Date Originally Submitted: November 2009

Implementation Date Requested: Fall 2010

I. Proposal

The intent of this proposal is to request a major revision of curriculum for the BS program in Information Systems. It is proposed that the new program title be changed to Information Systems Management. This will distinguish the program as a management intensive program within the School of Business as opposed to the hardware technology focus of the two-year Information Systems Technology degree offered through Pierpont Community and Technical College or the math intensive programming focus of the Computer Science degree within the College of Science and Technology. In addition, a new course numbering system is proposed using the BISM prefix to distinguish the program from the Information Systems Technology program. Both programs currently use the INFO prefix for course numbering which has caused significant confusion for students. The current and proposed program formats can be found in Appendix A.

Thirty-eight (38) required credit hours will be deleted from the current Information Systems program. A total of thirty-eight (38) credit hours will be added to the program including: thirty-three (33) newly required course credit hours, and an additional five (5) hours of free electives which will be added to the current sixteen (16) hours of free electives in order to meet the degree definition policy. A three (3) credit hour elective course that has not been offered for several years will also be deleted. In addition, the content of two (2) required courses will be revised. This curriculum proposal is being driven by the changing needs of Information Systems Professionals, requirements set forth by the Accreditation Board for Engineering and Technology (ABET), the Association to Advance Collegiate Schools of Business (AACSB) accreditation criteria, and the curriculum recommendations made by the Joint Task Force for Computing Curricula.

II. Description of Proposal

a. Deletion of Courses/credits from program:

Total Hours Deleted: 38 credit hours

- **Courses to remain in the Catalog but to be deleted from the IS Program**

Deletion of currently required courses	*27 credit hours*
BUSN 2251 Corporate Communications	3 credit hours
BUSN 3320 International Business	3 credit hours
BUSN 4415 Strategic Management and Policy	3 credit hours
COMP 1102 Principles of Programming I	3 credit hours
INFO 1100 Computer Concepts and Applications	3 credit hours
INFO 2200 Fundamentals of Information Systems	3 credit hours
INFO 2205 Hardware and Operating Systems	3 credit hours
INFO 2235 Microcomputer Applications in Business	3 credit hours
INFO 2250 Networking Fundamentals	3 credit hours

- **Courses to remain in the Catalog with new course numbering system**

Deletion due to course status change	*3 credits hours*
INFO 3350 Internship in Information Systems	3 credit hours

*Note: The internship is **currently required** but will be **changed to an elective** status course with a new course number in the catalog.*

- **Courses to be completely deleted from the Catalog**

Deletion of INFO required courses	*8 credit hours*
INFO 3339 Programming, Data and File Structures	4 credit hours
INFO 3340 Advanced Application Development	4 credit hours

Deletion of INFO elective course – 3 credit hours
INFO 3373 Management and Human Resources Information Systems

b. Addition of courses/credits to programs and total hours added:

Total Hours Added: 38 credit hours*

Addition of new courses	*33 credit hours*
BISM 1200 Introduction to Computing	3 credit hours
BISM 1400 Corporate Communications and Technology	3 credit hours
BISM 2200 Business Information Tools	3 credit hours
BISM 2400 Operating Systems Concepts	3 credit hours
BISM 2600 Introduction to Networking Administration	3 credit hours
BISM 3000 Business Programming Logic	3 credit hours
BISM 3200 Management Information Systems	3 credit hours
BISM 3600 E-commerce and Web Development Strategy	3 credit hours
BISM 3800 Object-oriented Business Applications	3 credit hours
BISM 4000 Global, Economic, Ethical, and Social IS	3 credit hours
BISM 4800 Information Systems Project Management	3 credit hours

**Note: Five (5) free elective credit hours will be added to the program to meet the degree definition policy for a total of 38 total credit hours added to the program.*

*c. **Provision for interchangeable use of course(s) with program(s):*** N/A

*d. **Revision of course content:***
The content for the following list of courses will be revised. (Revised course descriptions are provided in Appendix B.)

INFO 3310 Systems Analysis and Design (*renamed BISM 4200*)
INFO 4420 Database Design and Implementation (*renamed BISM 3400*)

*e. **Other changes to existing courses such as changes to title, course number, and elective or required status.***

BUSN 3330 Business Intelligence *(Elective class for IS and Business students)*
New Course Number: BISM 4300 Business Intelligence
(A new prefix and course number is proposed to better represent the course)

INFO 3310 Systems Analysis and Design
New Course Number: BISM 4200 Systems Analysis and Design

INFO 3350 Internship in Information Systems
New Course Number: BISM 4900 Internship in Information Systems
New Status: From required course to elective course

INFO 4420 Database Design and Implementation
New Number and Title: BISM 3400 Database Design and Development

INFO 4430 Advanced Topics in Information Systems
New Number and Title: BISM 4400 Current Topics in Information Systems

*f. **Creation of new course(s).***

Course Number: BISM 1200
Course Name: Introduction to Computing
Credit Hours: 3
Pre-requisites: N/A
Ownership: FSU

Course Number: BISM 1400
Course Name: Corporate Communications and Technology
Credit Hours: 3
Pre-requisites: ENGL 1104
Ownership: FSU

Course Number: BISM 2200
Course Name: Business Information Tools
Credit Hours: 3
Pre-requisites: BISM 1200, BISM 1400,
and Math ACT score of 19 or MATH 1100 or higher
Ownership: FSU

Course Number: BISM 2400
Course Name: Operating Systems Concepts
Credit Hours: 3
Pre-requisites: BISM 1200
Ownership: FSU

Course Number: BISM 2600
Course Name: Introduction to Networking Administration
Credit Hours: 3
Pre-requisites: BISM 2400
Ownership: FSU

Course Number: BISM 3000
Course Name: Business Programming Logic
Credit Hours: 3
Pre-requisites: BISM 2200
Ownership: FSU

Course Number: BISM 3200
Course Name: Management Information Systems
Credit Hours: 3
Pre-requisites: BISM 2200
Ownership: FSU

Course Number: BISM 3600
Course Name: E-commerce and Web Development Strategy
Credit Hours: 3
Pre-requisites: BSIM 3000, BISM 3200, BISM 3400
Ownership: FSU

Course Number: BISM 3800
Course Name: Object-oriented Business Applications
Credit Hours: 3
Pre-requisites: BISM 3000, BISM 3400
Ownership: FSU

Course Number: BISM 4000
Course Name: Global, Economic, Ethical, and Social IS
Credit Hours: 3
Pre-requisites: BISM 3200, ENGL 1108 – Writing Intensive Course
Ownership: FSU

Course Number: BISM 4800
Course Name: Information Systems Project Management
Credit Hours: 3
Pre-requisites: BISM 4200
Ownership: FSU

g. Attach an itemized summary of the present program(s) affected, if any, and of the proposed change(s).

1. Describe how this proposal affects the hours needed to complete this program. Specifically, what is the net gain or loss in hours?

This proposal does not change the total hours needed for program completion, i.e., the requirement remains a total of 128 hours. Currently, the BS program in Information Systems requires 39 hours of Business coursework and 29 hours of Information Systems coursework. Of the 29 hours IS coursework, 3 hours were required from the Computer Science department and 6 hours were required from the Pierpont Community and Technical College Information Systems Technology program leaving only 20 hours in classes actually offered through the Information Systems department. The major coursework requirement in the new curriculum has been changed to 24 hours of Business core coursework and 39 hours of Information Systems coursework. All proposed IS coursework will be based upon course content developed for the Information Systems Management (ISM) program and provided through the ISM department at Fairmont State University.

The number of free electives is being increased from 16 hours to 21 hours in order to meet the degree definition policy.

We are proposing one change in the general studies requirement for Information Systems students. The "first year experience" includes INFO 1100 Computer Concepts & Applications. The IS program faculty have identified that this course is not truly beneficial for the information systems students. We are proposing that BISM 1200, entitled "Introduction to Computing" be offered as a substitute for INFO 1100.

The School of Business is currently evaluating the required courses in the business core for potential program changes. We are proposing to continue providing the two Information Systems courses currently listed in the Business Core, which includes: INFO 2200 Fundamentals of Information Systems and INFO 2235 Microcomputer Applications in Business until the proposed program changes are approved for the business core.

Appendix C provides the model schedule based on the proposed curriculum (Appendix C.1) and the flow of major area coursework (Appendix C.2).

2. Include proof that this proposal meets the degree definition policy (Board of Governors Policy #52)

The revised curriculum meets the degree definition policy set forth by the Board of Governors. The program will still require 128 hours. The coursework requirement in the major area (Information Systems Management) will be 63 hours. (There is no required minor for the proposed ISM degree.) The degree definition policy states this requirement to be a maximum of 65 hours. The general studies requirement has been

set at 44 hours to meet all university general studies requirements. The free elective requirement has been set at 21 hours where the minimum requirement is 21 hours.

The current and proposed program formats can be found in Appendix A.

3. Exceptions to the degree definition policy - Not Applicable

III. Rationale for the Proposal

A. Quantitative Assessment:

Information Systems (IS) is a very dynamic field of study; therefore, it is very important the IS curriculum undergo a regular review with updates being made to keep pace with the demands of the profession. These changes must reflect the current trends in computing technology, information systems, and business, as well as the advances being made in standards, tools, and technologies related to the IS discipline. The Information Systems curriculum at FSU was developed in the 1990s and went through some revisions in 2003. However, the IS program has not been updated since that time despite the significant changes in the IS Profession and its requirements.

Changes to the current Information Systems curriculum are also necessary to prepare for accreditation of the program. The Information Systems Department at Fairmont State University is preparing to apply for accreditation by ABET (Accreditation Board for Engineering and Technology) in the 2011 to 2012 timeframe, as well as the potential for AACSB (Association to Advance Collegiate Schools of Business) accreditation through the School of Business within the next five years. This proposal reflects the changes needed to meet the requirements for these two internationally recognized accreditation bodies.

The revised curriculum for the BS in Information Systems and the minor in Information Systems have been designed based upon the requirements of ABET, AACSB, changing demands in the Information Systems Profession, and the IS model curriculum as designed by the Joint Task Force for Computing Curricula. As part of the program assessment plan set forth by the School of Business, the Department of Information Systems, and the requirements of Fairmont State University we have developed measurable course and program outcomes for the Information Systems Management program.

The revised curriculum was developed based on the documented continuous improvement process (ABET Criterion 4) and has been set forth in this document to be consistent with the program's outcomes as well as the outcomes set forth by the School of Business. By designing our program in this manner we are able to satisfy ABET Criterion 3 (a through j) and 5.

Currently the IS program requires 35 hours of Information Systems-related coursework. To meet the demands of the Information Systems Profession, ABET, and AACSB, the new IS program will require a minimum of 39 hours of IS coursework.

B. Qualitative Assessment:

Once implemented, this revised curriculum will strengthen the Information Systems (IS) program. In designing the revised curriculum, there has been an attempt to combine the IS requirements with the general studies and elective requirements set forth by FSU in a way so as to better prepare graduates for a professional career in the information systems field, for graduate study, and for functioning in modern society. The area requirements include up-to-date coverage of basic and advanced topics in information systems as well as an emphasis on business and project management.

The revised curriculum will not result in any immediate increased cost. Currently, the Information Systems program consists of three full-time faculty members and one faculty member in phased retirement. Appendix C provides the proposed Information Systems Management (ISM) model schedule, the proposed program course flow and the anticipated course offering schedule (starting in Fall 2010). There are nine different ISM course offerings planned for the Fall semesters and ten courses offered in the Spring semesters. Given that three of these courses are currently part of the business core classes required of all School of Business students, these classes are planned to be offered every semester in multiple sections. The current IS faculty members are able to handle the teaching load for the proposed program with the various ISM courses being offered with one section one semester per year as displayed in Appendix C.3. However, it is critical for the sake of growing the program (i.e., offering ISM courses more than once per year, offering multiple sections of ISM course offerings per semester, creating and offering more ISM elective courses, creating specialization tracts, providing course release time for research, etc.) that a replacement be found for the current faculty member in phased retirement by the Spring 2011 term when he enters full-time retirement.

The rationale for each modification in the curriculum is described next:

Delete INFO 1100 Computer Concepts and Applications course requirement and add BISM 1200 Introduction to Computing

The BISM 1200 Introduction to Computing course will work as a substitute for the general studies requirement of INFO 1100 Computer Concepts & Applications. The Introduction to Computing course will need added to the catalog. The purpose of this course will be to introduce a general understanding of the information systems management discipline and related computing topics. The INFO 1100 course is not really helpful for the information systems students since most of them already acquire basic computer skills in high school. However, to comply with the university general studies outcomes, the students in this course will be required to turn in homework/essays/presentations using office application software. Not only will this course prepare the IS students, this will also provide a helpful learning experience for non-majors who may enroll.

Delete COMP 1102 Principles of Programming I requirement and add BISM 3000 Business Programming Logic

The current IS model schedule lists COMP 1102 Principles of Programming I as a pre-requisite to the INFO 3339 Programming/Data/File Structures course. The purpose was to ensure that students entered INFO 3339 with a basic understanding of programming principles. The COMP 1102 course introduces programming concepts to students using the C++ language which is

aimed more toward Computer Science students. Reviewer comments were made during the ABET accreditation visit to the IS department during the Fall 2007 semester that C++ as a pre-requisite to Visual Basic programming courses was a bit illogical. Based upon anecdotal data from recent years, most IS students have little programming experience and need a more general problem-solving and algorithm development course prior to the IS programming-based courses. The proposed BISM 3000 Business Programming Logic course emphasizes requirements analysis and algorithm development for problem-solving using flow-charting and pseudo-code methods. Students will be introduced to basic programming concepts including variables and calculations, decisions and conditions, and looping structures within the .NET environment to better align with the required IS programming courses.

Delete INFO 2200 Fundamentals of Information Systems course from the ISM program and add BISM 3200 Management Information Systems

This course will work as a replacement for INFO 2200 Fundamentals of Information Systems. The BISM 3200 Management Information Systems will need to be added to the catalog. The purpose of the change is to provide junior level students within the School of Business, an understanding of and experience with information systems, within the functional areas of a modern business environment. Currently, the INFO 2200 course tries to introduce students in their freshmen or sophomore years, to information systems concepts when they have no understanding of the business enterprise or functional areas within the enterprise. By moving this course to the junior year, students will have a more complete understanding of the functional areas within the business enterprise, thereby making the course a more learning centric experience.

Delete INFO 2205 Information Technology Hardware and Operating Systems requirement and add BISM 2400 Operating System Concepts

This course will substitute for INFO 2205 Information Technology Hardware and Operating Systems. The BISM 2400 Operating System Concepts course will need to be added to the catalog. The purpose of this course is to provide students with an understanding of the concepts of modern operating systems like UNIX, Windows, and Linux. This course will provide the student with information and experience with all three operating systems. This is a requirement for accreditation by accrediting bodies such as ABET. The current INFO 2205 course does not address the UNIX operating system. After speaking with the coordinator of the two-year program it was determined that it was not possible to add UNIX to the INFO 2205 course.

Delete INFO 2235 Microcomputer Applications in Business requirement and add BISM 2200 Business Information Tools

The current INFO 2235, a business core course, continues the content (Word, Excel, Access, and PowerPoint) presented in INFO 1100, a general studies requirement course. The new course will focus on fluency in computerized information systems for quantitative business applications. Therefore, students will focus on databases and spreadsheets to assist in the setup and resolution of various business problems. The new course will also drop "Microcomputer", an obsolete term which no longer represents the course, from the course title.

Delete INFO 2250 Networking Fundamentals requirement
and add BISM 2600 Introduction to Networking Administration
The BISM 2600 Introduction to Networking Administration course will replace the current INFO 2250 Networking Fundamentals course offered through Pierpont Community and Technical College. The BISM 2600 Introduction to Networking Administration course will need to be added to the catalog. The course will offer students in the four-year IS program with an understanding and experience with the components of a modern business communications network. Along with the technology, students will be presented with the problems experienced by business managers dealing with the design, deployment, and maintenance of networks. The marriage of networking technology with modern business management concepts is required of IS program graduates.

Revise INFO 3310 Systems Analysis and Design
and rename to BISM 4200 Systems Analysis and Design
The BISM 4200 Systems Analysis and Design course will replace INFO 3310 Systems Analysis and Design. The BISM 4200 Systems Analysis and Design course will need to be added to the catalog. This course will cover both fundamental and advanced concepts required of a Systems Analyst by modern business and accrediting agencies such as ABET. The current INFO 3310 is designed to offer the fundamental concepts with a narrow focus on programming. The new course will offer both fundamental and advanced concepts thus allowing the student to utilize their knowledge from across the entire IS program in the course project. The course level is being changed from a 3000 level course to a 4000 level course to represent the change in focus to more advanced content.

Delete INFO 3373 Management and Human Resources Information Systems
The INFO 3373 Management and Human Resources Information Systems course has not been offered for several years and is being deleted from the catalog to more accurately reflect the courses that are intended to be offered through the Information Systems program.

Delete INFO 3339 Programming, Data, and File Structures
and add BISM 3800 Object-Oriented Business Applications
With the growth of high tech industries in the area, the demand for computer and systems analysts has been on the rise in the last few years. A lot of these positions require in-depth knowledge of object-oriented programming and event-driven programming for developing user interfaces. To make the IS students competitive with the graduates of other institutions in the state, it is very important for them to have some experience in object-oriented and event-driven programming as related to database-driven business applications. Currently, the only course where the students learn a little bit of object-oriented programming is INFO 3340 Advanced Application Development. With the addition of the BISM 3000 Business Programming Logic course, it is logical to have a second programming course dedicated to the object-oriented programming approach for business applications.

Delete INFO 3340 Advanced Application Development
and add BISM 3600 E-commerce and Web Development Strategy
The old course title does not correctly represent the goal and content of the course to not only current and future students but also current and potential employers. The new course title will

clearly indicate the goal and content of the course. In addition, in the new course, students will not only learn building blocks of web application development but also learn various revenue models and their application in a variety of sectors and industries.

Rename INFO 3350 Internship in Information Systems
to BISM 4900 Internship in Information Systems
and revise the course status from required to elective

The current IS program requirements include INFO 3350 Internship in Information Systems. This course requires the student to complete an internship in the field. However, there is no formal internship program and, therefore, no guarantee that each student will be placed into an internship. In addition, many of the students already work full-time in an IS-related position and gain little value from counting their current job towards this course requirement. Therefore, the status of this course is being changed to an elective. This allows flexibility such that students wanting hands-on work experiences can work with IS faculty to secure an internship position while students already working full-time in the field are not required to do so and graduation is not delayed for students that are not able to secure an internship position. The prerequisite for this course is now "Instructor Approval" only. In addition, the level is being changed from a 3000 level to a 4000 level course to represent that the student should be in the Senior year. It is preferred the bulk of the IS curriculum be completed by the student prior to scheduling an internship in the field.

Revise INFO 4420 Database Design and Implementation
and rename to BISM 3400 Database Design and Development

The new course title will use "Development" which represents a major part of the course content instead of "Implementation" which is a small part of the course and does not fully represent the goal of the course. The course number also needs to be changed to BISM 3400 to serve as a prerequisite for BISM 3600 E-Commerce and Web Development Strategy and BISM 3800 Object-Oriented Business Applications, both of which require a solid foundation of database design and development. The course level is being corrected from a 4000 level course to a 3000 level course to represent the course as a Junior level course. The current content for the course is more appropriate as a prerequisite to the programming sequence BISM 3600 and BISM 3800 then as a capstone course for the series as is currently in the catalog.

Revise INFO 4430 Advanced Topics in Information Systems
and rename to BISM 4400 Current Topics in Information Systems

The title for this course is being changed to better represent the intent of the course. Given the dynamic nature of the Information Systems field, there are constantly topics of interest of which students should be aware for employability. This course will be an ongoing required course to present issues depending upon hot topics in industry for a given semester. Examples of course topics include telecommunications, grid computing, health informatics, data visualization, etc. The current title for this course "Advanced" Topics in Information Systems may be misleading to students.

Delete BUSN 2251 Corporate Communications requirement
and add BISM 1400 Corporate Communications and Technology

The current BUSN 2251 Corporate Communications course is a shared course with a focus on writing business correspondence including letters, memos, and e-mail messages, as well as various forms of communication necessary for job hunting such as application letters and resumes. The new course will be a Fairmont State University-owned course offered through the Information Systems department and will focus on using technology to support technical writing, oral presentations and online communications. This includes conducting research using the online library resources, developing reports using word processing report features, using online document sharing applications for concurrent reviews and configuration management, and preparing and giving formal presentations. In addition, the course will cover online networking in the context of business communications.

Delete BUSN 3320 International Business requirement
and add BISM 4000 Global, Economic, Ethical, and Social Information Systems

This course will replace BUSN 3320 International Business. The BISM 4000 Global, Economic, Ethical, and Social Information Systems course will need to be added to the catalog. This course provides students with the opportunity to investigate the global, economic, social, and ethical frames of decision making in their future roles as information systems professionals. The course places an emphasis on studying and discussing global, economic, social, and ethical frames, and their implications for understanding information system's issues and concerns. The points being emphasized have risen from the organizational development and deployment of computers and computing technologies (implemented information systems). Global, social, ethical, and economic issues will be identified and discussed using cases to initiate critical thinking and discussions of information system issues. The class discussions and assignments will address how information systems affect, or are affected by, society/cultures, ethics, and economic costs around the world. Students will be required to explore and understand the similarities and differences that result when working with information systems in a global setting. BUSN 3320 does not address all of the frames that will be covered in BISM 4000. This course was designed in part, to meet the requirements of accreditation bodies such as ABET. A course very similar to BISM 4000 is being offered at other universities that have received accreditation for their programs by both ABET and AACSB.

Renumber BUSN 3330 Business Intelligence
to BISM 4300 Business Intelligence

The BUSN 3330 Business Intelligence course will be renamed as BISM 4300 Business Intelligence to indicate that it is an Information Systems-related course. This course was developed in Fall 2005 by a Business Intelligence Curriculum Committee chaired by Dr. Roger Wilson, an Information Systems faculty member. The committee was composed of Business, Information Systems, and Intelligence Research Analysis faculty in support of the National Security and Intelligence program development. The content of this course is Information Systems based and will be taught by Information Systems faculty. The course is being changed from a 3000 level course to a 4000 level course to better represent the course content as Senior level.

Delete BUSN 4415 Strategic Management and Policy requirement and add BISM 4800 Information Systems Project Management

The Information Systems degree just recently became a separate degree from the Business Administration degree. Prior to that time, students earned a BS in Business Administration with a concentration in Information Systems. It is more appropriate for a student earning a BS in Information Systems to have a capstone course in Information Systems as opposed to Business Administration. The BISM 4800 Information Systems Project Management capstone course will serve to provide the IS students with the opportunity to work on an IS-related project, from requirements elicitation through development, implementation, and testing while applying the principles of technical project management throughout the process.

IV. Other Schools/Programs Affected by this Proposal

College/School	Dean	Signature
Pierpont Comm & Tech College - Information Systems Technology	Dr. Gerald Bacza	
Fairmont State University - College of Science & Technology	Dr. Anthony Gilberti	
Fairmont State University General Studies Committee Chair	Dr. Angela Schwer	
Fairmont State University - College of Liberal Arts	Dr. Deanna Shields	

V. Additional Comments

Impact on Business Core Courses

Two courses proposed to be deleted from the current Information Systems program will affect the current Business Core. These include the INFO 2200 Fundamentals of Information Systems and INFO 2235 Microcomputer Applications in Business. The two courses being added are BISM 2200 Business Information Tools and BISM 3200 Management Information Systems, respectively. However, the department of Information Systems recognizes that the two courses being deleted are currently part of the core curriculum within the School of Business. Because of this issue, the Information Systems department will continue to offer both of these courses while the School of Business is working through the restructuring of their core curriculum.

Impact on Information Systems Minor

There are no changes being proposed to the Information Systems minor in this proposal. The current requirements for a minor in Information Systems are: (1) INFO 2200 Fundamentals of Information Systems which will still be offered as part of the business core; and, (2) an additional 15 credit hours from a selected list of INFO courses. Given the new numbering scheme for the Information Systems Management program using the BISM course prefix, the catalog will need to reflect the equivalent Information Systems courses as listed with the BISM prefix. The list of courses available for the minor will be listed as follows:

Courses currently listed for the minor that will remain the same in the catalog *(courses offerings through Pierpont Community and Technical College):*

INFO 2205 Info Tech-Hardware and Operating Systems

INFO 2250 Networking Fundamentals
INFO 2251 Router Theory and Router Technologies
INFO 2252 Advanced Routing and Switching
INFO 2253 Project Based Learning

Courses currently listed for the minor that will change as a result of changes to the major:

Course Currently Listed for the Minor	Changes to Course as a Result of the New Program
INFO 3310 System Analysis and Design	BISM 4200 Systems Analysis and Design
INFO 3339 Programming, Data and File Structures	BISM 3800 Object-Oriented Business Applications
INFO 3340 Advanced Application Development	BISM 3600 E-commerce and Web Development Strategy
INFO 3373 MGMT/Human Resources Info Systems	*Delete Course (remove from catalog)*
INFO 4420 Database Design and Implementation	BISM 3400 Database Design and Development
INFO 4430 Advanced Topics in Information Systems	BISM 4400 Current Topics in Information Systems

APPENDIX A.1

B.S. Degree in Information Systems - *Current Program*

Required Major Courses			**HRS**	**29* (32)**
COMP	1102	Principles of Programming I (SciTech course)	3	
INFO*	2200	Fundamentals of Information Systems	3	
INFO	2205	Hardware and Operating Systems (Pierpont)	3	
INFO	2250	Networking Fundamentals (Pierpont)	3	
INFO	3310	Systems Analysis and Design	3	
INFO	3339	Programming, Data, and File Structures	4	
INFO	3340	Advanced Application Development	4	
INFO	3350	Internship in Information Systems	3	
INFO	4420	Database Design and Implementation	3	
INFO	4430	Advanced Topics in Information Systems	3	
		Business Core Classes		**39** (45)**
ACCT	2201	Principles of Accounting I	3	
ACCT	2202	Principles of Accounting II	3	
BUSN	2251	Corporate Communications	3	
BUSN	3306	Business Law I	3	
BUSN	3310	Business and Economics Statistics	3	
BUSN	3320	International Business	3	
BUSN	4415	Strategic Management and Policy	3	
ECON**	2201	Economic Principles and Problems I	3	
ECON	2202	Economic Principles and Problems II	3	
FINC	2201	Introduction to Financial Management	3	
INFO*	2200	Fundamentals of Information Systems	3	
INFO	2235	Microcomputer Applications in Business	3	
MGMT	2209	Principles of Management	3	
MKTG	2204	Principles of Marketing	3	
MATH**	1112	College Algebra (or higher Math)	3	
TOTAL Required Major Courses				68
Major Elective Courses: INFO 3373 Mgmt & HR Info Systems				3
Minor Electives				N/A
TOTAL HOURS FOR MAJOR				**68**

Required General Studies Courses				
First Year Experience				15
ENGL	1104	Written English I	3	
ENGL	1108	Written English II	3	
INFO	1100	Computer Concepts and Applications	3	
MATH**	1112	College Algebra *(required above)*	3	
COMM	2202	Intro to Communication in World of Work	3	
Artistic / Creative Expression				6
Cultural / Civilization Exploration				9
Scientific Discovery				8
Society / Human Interactions (MATH can count above)				3
TOTAL GENERAL STUDIES HOURS				**44**
TOTAL FREE ELECTIVES				**16**
TOTAL HOURS				**128**

Notes related to Current Program Table on page 13:

There are discrepancies in the course catalog due to the following issues:

*Page 156 - The IS Curriculum shows 32 hours required; however, INFO 2200 is already part of the hours listed for the Business Core. Therefore, there are actually 29 IS hours required in addition to the Business Core.

**Pages 149 and 156 - The complete Business core list of courses on page 149 totals 45 hours. This list includes ECON 2201 and MATH 1112, each of which satisfies General Studies requirements. The hours listed on page 156 of the catalog includes INFO 2200 as part of the IS curriculum instead of the business core; therefore, the Business Core is listed as 36 hours and the IS has 32 hours listed. A more accurate depiction of this is 29 hours for IS courses, 39 hours of business core courses, and 44 hours of General Studies courses which includes the ECON 2201 and MATH 1112.

APPENDIX A.2

B.S. Degree in Information Systems

Proposed Program --and-- Analysis of Compliance with Degree Definition Policy

					Degree Definition Policy
Required Major Courses			**HRS**	**63**	
ACCT	2201	Principles of Accounting I	3		
ACCT	2202	Principles of Accounting II	3		
BISM	1400	Corporate Communications and Technology	3		
BISM	2200	Business Information Tools	3		
BISM	2400	Operating Systems Concepts	3		
BISM	2600	Introduction to Networking Administration	3		
BISM	3000	Business Programming Logic	3		
BISM	3200	Management Information Systems	3		
BISM	3400	Database Design and Development	3		
BISM	3600	E-Commerce and Web Development Strategy	3		
BISM	3800	Object-Oriented Business Applications	3		
BISM	4000	Global, Economic, Ethical, and Social IS	3		
BISM	4200	Systems Analysis and Design	3		
BISM	4400	Current Topics in Information Systems	3		
BISM	4800	Information Systems Project Management	3		
BUSN	3306	Business Law I	3		
BUSN	3310	Business and Economics Statistics	3		
ECON	2202	Economic Principles and Problems II	3		
FINC	2201	Introduction to Financial Management	3		
MKTG	2204	Principles of Marketing	3		
MGMT	2209	Principles of Management	3		
TOTAL Required Major Courses				63	
Major Electives to be offered – Not required					
BISM	4300	Business Intelligence	3		
BISM	4900	Internship in Information Systems	3		
Minor Electives			N/A		
TOTAL HOURS FOR MAJOR				**63**	**Max 65**
Required General Studies Courses					
First Year Experience				15	
BISM	1200	Introduction to Computing	3		
COMM	2202	Intro to Comm in the World of Work	3		
ENGL	1104	Written English I	3		
ENGL	1108	Written English II	3		
MATH	1112	College Algebra	3		
Artistic / Creative Expression				6	
Cultural / Civilization Exploration				9	
ECON	*2201*	*~ satisfies 3 hours Society/Human Interactions*		3	
Scientific Discovery				8	
Society / Human Interactions				3	
TOTAL GENERAL STUDIES HOURS				**44**	
TOTAL FREE ELECTIVES				**21**	**Min 21**
TOTAL HOURS				**128**	128

APPENDIX A.3

Summary of Current Program versus Proposed Changes

Current Course Requirements	Proposed Requirement Changes for New Program
BUSN 2251 Corporate Communications	BISM 1400 Corporate Communications and Technology
BUSN 3320 International Business	BISM 4000 Global, Economic, Ethical, and Social IS
BUSN 4415 Strategic Management and Policy	BISM 4800 Information Systems Project Management
COMP 1102 Principles of Programming I	BISM 3000 Business Programming Logic
INFO 1100 Computer Concepts and Applications	BISM 1200 Introduction to Computing
INFO 2200 Fundamentals of Information Systems	BISM 3200 Management Information Systems
INFO 2205 Hardware and Operating Systems	BISM 2400 Operating Systems Concepts
INFO 2235 Microcomputer Applications in Business	BISM 2200 Business Information Tools
INFO 2250 Networking Fundamentals	BISM 2600 Introduction to Networking Administration
INFO 3310 Systems Analysis and Design	BISM 4200 Systems Analysis and Design
INFO 3339 Programming, Data, and File Structures	BISM 3800 Object-Oriented Business Applications
INFO 3340 Advanced Application Development	BISM 3600 E-commerce and Web Development Strategy
INFO 3350 Internship in Information Systems	BISM 4900 Internship in Information Systems (*elective*)
INFO 4420 Database Design and Implementation	BISM 3400 Database Design and Development
INFO 4430 Advanced Topics in Information Systems	BISM 4400 Current Topics in Information Systems

Elective Courses	Proposed Changes to Electives for New Program
BUSN 3330 Business Intelligence	BISM 4300 Business Intelligence
INFO 3337 Management & Human Resources IS	*Delete Course (remove from catalog)*

Appendix B

Course number: BISM 1200
Course Title: Introduction to Computing
Credit Hours: 3
Prerequisites: N/A
Ownership: FSU
Status: Required for Major in Information Systems

Course Description for Catalog:
BISM 1200 This course provides an overview of the current state of computing and its social implications. This is intended to be used as a breadth-first introductory course for majors and non-majors. Topics include organization of a computer system, examination of computing disciplines, social implications of computing, problem solving using productivity software applications, and investigations of emerging areas in information systems.

Detailed Course Outline

- Basic Computer Concepts
  - Basic Computing Functions
  - Hardware Devices
  - Software
  - Networks
  - Safe Computing Practices
- Computing Across the Professions
  - Computing-specific disciplines
  - Computing disciplines as applied within non-computing professions
  - Responsibilities of computing professionals
- Social Implications of Computing
  - Security Issues
  - Ethical Issues
- Productivity Software Applications
  - Creating Documents with Microsoft Word
  - Creating Worksheets and Charting Data with Excel
  - Creating Tables and Databases with Access
  - Creating Presentations with PowerPoint
  - Scheduling, Tracking and Managing Projects/Workgroups Using Microsoft Outlook
- Programming Logic
  - Introduction to Problem Solving
  - Flowcharting
  - Pseudocode
- Emerging Areas in Information Systems
  - Telecommunications, data mining, bioinformatics, grid computing, data visualization, etc.

Outcome Competencies and Assessment Methods:

- Students will identify and recall fundamental computing terminology.
  - Assessed by Written tests
- Students will compare and contrast the roles and responsibilities of professionals within computing specific disciplines and how these are applied across non-computing disciplines.
  - Assessed by Essay examinations
- Students will demonstrate their comprehension of the fundamental concepts with productivity software applications, including word processing, spreadsheet development and analysis, database development and analysis, presentation supplementary material development and project scheduling and tracking.
  - Assessed by Classroom demonstration
- Students will analyze a variety of problems as related to computing, design solutions, and present results through oral and written forms of communication.
  - Assessed by Written short answer examinations

Course number: BISM 1400
Course Title: Corporate Communications and Technology
Credit Hours: 3
Prerequisites: ENGL 1104
Ownership: FSU
Status: Required for Major in Information Systems

Course Description for Catalog:
BISM 1400 This course will focus on applying technology to support technical writing, oral presentations and online communications. This includes conducting research using the online library resources, developing reports using advanced word processing report features, integrating spreadsheet and database applications within the word processing document to automate data updates, using online document sharing applications for concurrent reviews and configuration management, and preparing and giving formal presentations. In addition, the course will introduce teamwork concepts and online networking in the context of business communications. PR: ENGL 1104

Detailed course outline:

- Technical Writing Resources
  - Literature Reviews
  - Reference Formatting
- Document Organization
  - Document Formatting
  - Text Formatting
  - Paragraph Formatting
- Enhancing Documents
  - Tables and Advanced Features
  - Graphic Tools
- Formal Working Teams
  - Team Roles
  - Stages of Team Development
  - Team Dynamics and Conflict Management
  - Teamwork Documentation
- Workgroup Collaboration Tools
  - Brainstorming Software Applications (such as Mindmapping)
  - Commenting Documents
  - Tools for Reviewing Multiple Documents
- Productivity Tools
  - Document Themes
  - Mail Merge
  - External Data Sources
- Desktop Publishing
  - Drawing Tools and Special Effects
  - Object Linking and Embedding
- Advanced Document Features
  - Electronic Forms
  - Document Protection and Authentication
  - Introduction to Macros
- Online Communications
  - Creating Web Pages
  - Working with XML and Blogs
  - Social and Professional Networking

Outcome Competencies and Assessment Methods:

- Each student will identify and cite appropriate resources in support of a technical report.
  - Assessed by quizzes, exams and writing assignments, including, abstracts, executive summaries, technical reports, and a research paper
- Each student will demonstrate the ability to design technical reports using advanced report features of word processing software and integrate with spreadsheet and database files, as appropriate.
  - Assessed by quizzes, exams and writing assignments including executive summaries, technical reports and a research paper
- Each student will use online configuration management tools to review/edit files for team projects.
  - Assessed by interim drafts of team project reports

- Each student will demonstrate the ability to design effective web pages
    - Assessed by individual website and a team project website
- Each student will demonstrate the ability to present professional-quality oral presentations
    - Assessed by formal presentations for individual assignments and the team project
- Each student will demonstrate applications of web-based social networking to support business functions
    - Assessed by quizzes, exams and individual assignments and team project

Course number: BISM 2200
Course Title: Business Information Tools
Credit Hours: 3
Prerequisites: BISM 1200, BISM 1400, and Math ACT score of 19 or MATH 1100 or higher
Ownership: FSU
Status: Required for Major in Information Systems

Course Description for Catalog:
BISM 2200 This course focuses on fluency in computerized information systems technology along with how information is collected, stored, organized, and managed to facilitate effective decision-making. Students will create and use databases and spreadsheets to assist in the setup and resolution of business problems. The functionality within Microsoft Excel will be used to carry out "what-if" scenarios, sensitivity analysis, statistical analysis, and graphic displays. Microsoft Access will be utilized to design, create, implement, and query databases. PR: BISM 1200, BISM 1400, and Math ACT score of 19 or MATH 1100 or higher

Detailed course outline:

- Formulas, Functions, Formatting, and Web Queries
  - Using the Average, MAX, and MIN functions
  - Verifying Formulas Using Range Finder
  - Importing External Data from a Web Source using a Web Query
- What-If Analysis, Charting, and Working with Large Worksheets
  - Using the Fill Handle
  - Absolute versus Relative Addressing
  - Making Decision – the IF function
  - What-If Analysis
- Financial Functions, Data, Tables, and Amortization Schedules
  - Using a Data table to Analyze Worksheet Data
  - Creating an Amortization Schedule
- Creating, Sorting, and Querying a Table
  - Computational Fields to the Table
  - Lookup Table
  - Querying a Table using AutoFilter
- Creating Templates and Working with Multiple Worksheets and Workbooks
  - Creating the Template
  - Creating a Workbook from a Template
  - Consolidating Data by Linking Workbooks
- Creating and Using a Database
  - Designing a Database
  - Creating a Table
- Querying a Database
  - Creating Queries
  - Joining Tables
  - Calculations
  - Crosstab Queries
- Maintaining a Database
  - Updating Records
  - Changing the Database Structure
  - Validation Rules
  - Referential Integrity
- Creating Reports and Forms
  - Report Creation
  - Multi-Table Reports
  - Form Creation
- Macros, Switchboards, PivotTables, and PivotCharts
  - Creating and using Macros
  - Creating and Using a Switchboard
  - PivotTables and PivotCharts

Outcome Competencies and Assessment Methods:

- Each student will identify the concepts and terminology necessary for computer fluency.
  - Assessed By Written tests

- Each student will explain the components of a computerized information system.
    - Assessed by Essay examinations
- Each student will solve business problems using spreadsheet software.
    - Assessed by Classroom demonstrations
- Each student will solve business problems using personal database software.
    - Assessed by Classroom demonstrations
- Each student will design spreadsheets using functions such as "what-if."
    - Assessed by Classroom demonstrations
- Each student will design and query personal databases.
    - Assessed by Classroom demonstrations
- Each student will construct reports using spreadsheets and a personal database management system.
    - Assessed by Classroom demonstrations
- Each student will demonstrate the ability to present professional-quality oral presentations
    - Assessed by formal presentation for final project

Course number: BISM 2400
Course Title: Operating Systems Concepts
Credit Hours: 3
Prerequisites: BISM 1200
Ownership: FSU
Status: Required for Major in Information Systems

Course description for catalog:

BISM 2400 This course explores hardware and software configurations as integrated systems and provides a basic understanding of what an operating system is and how it works. Fundamental concepts such as computer architecture are presented along with the execution concepts related to multiple operating systems. A variety of operating systems, such as MS-DOS and Windows, Windows NT, and UNIX are examined in single and multi-user environments. PR: BISM 1200

Detailed course outline:

- Computer System Overview
  - Basic Elements
  - Processor Registers
  - Instruction Execution
  - Interrupts
  - The Memory Hierarchy
  - Cache Memory
  - I/O Communication Techniques
- Operating System Overview
  - Operating System Objectives and Functions
  - The Evolution of Operating Systems
  - Major Achievements
  - Developments Leading to Modern Operating Systems
  - Microsoft Windows Overview
  - Traditional and Modern UNIX Overview
  - Linux Overview
- Process Description and Control
  - Process States
  - Process Description
  - Process Control
  - Execution of the Operating Systems
  - Security Issues
  - UNIX SVR4 Process Management
- Threads, SMP, an Microkernels
  - Processes and Threads
  - Windows Vista Thread and SMP
  - Solaris Thread and SMP
  - Linux Process and Thread Management
- Concurrency
  - Principles of Concurrency
  - Semaphores
  - Monitors
  - Message Passing
  - Principles of Deadlock
  - UNIX Mechanisms
  - Linux Kernel Mechanisms
  - Solaris Thread Synchronization
  - Windows Vista Mechanisms
  - Memory
  - Memory Management Requirements
- Scheduling
  - Types of Scheduling
  - Multiprocessor Scheduling
  - Linux Scheduling
  - UNIX Scheduling
  - Windows Vista Scheduling

- I/O Management and Disk Scheduling
    - Devices
    - I/O Functions
    - OS Design Issues
    - Buffering
    - Disk Scheduling
    - RAID
    - UNIX I/O
    - Linux I/O
    - Windows Vista I/O

Outcome Competencies and Assessment Methods:

- Each student will identify operating system concepts and terminology.
    - Assessed by Examinations
- Each student will analyze the components and structure of an operating system.
    - Assessed by Detailed written assignment
- Each student will use multiple operating systems and compare their functionality.
    - Assessed by Detailed written report
- Each student will create a report distinguishing the range of tasks each operating system utilizes.
    - Assessed by Final project
- Each student will demonstrate the ability to present professional-quality oral presentations
    - Assessed by formal presentations for individual assignments and class projects

Course number: BISM 2600
Course Title: Introduction to Networking Administration
Credit Hours: 3
Prerequisites: BISM 2400
Ownership: FSU
Status: Required for Major in Information Systems

Course description for catalog:
This course examines detail issues and techniques in computer networking. Emphasis is placed on local area networks, internetworking via TCP/IP and the Internet. The OSI reference model and the TCP/IP protocols form the framework. Topics include the key aspects of networking, interoperability, LAN strategies and standards such as shared and switched Ethernet, Token Ring and FDDI; LAN internetworking using bridges and routers; routing strategies and congestion in networks along with how data passes through layers. PR: BISM 2400

Detailed course outline:

- Introduction to networking and internet applications
  - Internet Trends
  - Internet Applications and Network Programming
  - Traditional Internet Applications
- Data Communications
  - Information Sources and Signals
  - Transmission Media
  - Reliability and Channel Coding
  - Transmission Modes
  - Modulation and Modems
  - Multiplexing and Demultiplexing
  - Access and Interconnection
- Packet Switching and Network Technologies
  - Local Area Networks: Packets, Frames, and Topologies
  - The IEEE MAC Sub-Layer
  - Wired LAN Technology
  - Wireless Networking Technologies
  - Lane extensions: Fiber Modems, Repeaters, Bridges, and Switches
  - WAN Technologies and Dynamic Routing
  - Networking Technologies Past and Present
- Internetworking
  - Internetworking: Concepts, Architecture, and Protocols
  - IP: Internet Addressing
  - Datagram Forwarding
  - Support Protocols and technologies
  - The Future IP (IPv6)
  - UDP: Datagram Transport Services
  - TCP: Reliable Transport Services
  - Internet Routing and Touting Protocols

Outcome Competencies and Assessment Methods:

- Students will be able to identify and apply the components of a network system.
  - Assessed by Examinations
- Students will be able to identify and document the five key aspects of networking.
  - Assessed by Detailed Assignments
- Students will be able to describe how data passes through network layers.
  - Assessed by Detailed written report
- Students will be able to identify and solve common networking problems.
  - Assessed by Examinations
- Students will be able to transform network models into network designs.
  - Assessed by Detailed case study
- Students will be able to document network designs.
  - Assessed by Final project
- Students will be able to present a network project to a group.
  - Assessed by Professional presentation of the final project

Course number: BISM 3000
Course Title: Business Programming Logic
Credit Hours: 3
Prerequisites: BISM 2200
Ownership: FSU
Status: Required for Major in Information Systems

Course description for catalog:
BISM 3000 This course introduces problem-solving and programming logic for business applications. Students will learn fundamental problem-solving techniques that are necessary to develop computer applications to solve business problems. Students will also be introduced to the Visual Basic programming language. PR: BISM 2200

Detailed course outline:

- General Problem-Solving Concepts
  - Types of Problems
  - Formal Problem Solving Process
  - Pseudocode
  - Flowcharting
  - Introduction to Structured Design
- Introduction to Visual Programming
  - User Interface Design
  - Object-oriented Programming Concepts (Objects, Properties, Methods, Events)
  - Good Program Design
  - Visual Basic Controls
  - User Event Procedures
  - Debugging Techniques
- Simple Sequential Control Structures
  - Data Types
  - Variables and Constants
  - Data Conversion and Exception Handling
  - Calculations
  - Formatting Output
  - Accumulating Data
- Decision Control Structures
  - Conditions
  - Selection Logic (IfThenElse and Select Case)
  - Nested Decision Structures
  - Data Input Validation
- Modularization
  - Procedures
  - Passing Arguments
  - Functions
- Looping Structures
  - For Next
  - DoWhile
  - DoUntil
- Multiform Projects
  - Menus and Dialog Boxes
  - Form Templates
  - Variable Scope

Outcome Competencies and Assessment Methods:

- Each student will solve business-related problems using a formal problem-solving approach.
  - Assessed by homework assignments, quizzes, exams and class projects
- Each student will explain the concepts of classes, objects, properties, methods and events.
  - Assessed by homework assignments, quizzes, exams and class projects
- Each student will apply fundamental programming principles (e.g., variables, constants, calculations, decisions, procedures, functions, lists, and loop structures) to create business-related programming applications.
  - Assessed by homework assignments and class projects
- Each student will demonstrate the ability to present professional-quality oral presentations
  - Assessed by formal presentations for individual assignments and class projects

Course number: BISM 3200
Course Title: Management Information Systems
Credit Hours: 3
Prerequisites: BISM 2200
Ownership: FSU
Status: Required for Major in Information Systems

Course description for catalog:

BISM 3200 This course focuses on the fundamentals associated with the management of information systems and technology in a dynamic business environment. Special emphasis is placed on managerial issues that are relevant to selection, application, and usage of computerized information systems in a business enterprise. Topics covered include the MIS framework, ethics, technology, information systems collaboration, decision-making, competitive advantage, telecommunications, databases, data communication, E-commerce, Supply Chain, and information systems management. PR: BISM 2200

Detailed course outline:

- Information Changing the Face of Business
  - Information as a Key Resource
  - People as the Key Resource
  - Information Technology as a Key Resource
  - Creating the Business Vision for Information Technology
- Computer Hardware and Software
  - Categories of Computers
  - Software: Your Intellectual Interface
  - Hardware: Your Physical Interface
- Gaining Competitive Advantage with IT
  - Porter's Five Forces Model
  - The Value Chain
  - Supply Chain Management
  - Customer Relationship Management
  - Business Intelligence
  - Integrated Collaboration Environment
- Databases and Data Warehouses
  - The Relational Database Model
  - Database Management Systems Tools
  - Data Warehouses and Data Mining
  - Information Ownership
- Decision Support Systems
  - Decisions Overview
  - Decision Support Systems
  - Geographic Information Systems
  - Neural Networks and Fuzzy Logic
  - Intelligent Agents
- Electronic Commerce
  - E-Commerce Business Models
  - Business Products, Service and Customers
  - Find Customers and Establish Relationships
  - Move Money Easily and Securely
  - Broadening of E-Government
- Systems Development
  - Systems Development Life-Cycle
  - Systems Development Methodologies
  - Outsourcing
  - Prototyping
  - End-User Development
- Enterprise Infrastructure and Integration
  - Enterprise Systems
  - Developing AGILE IT Systems
  - Information Systems Infrastructure
  - Information Systems Technology Infrastructure
  - Integrating the Enterprise

- Protecting People and Information
  - Ethics
  - Privacy
  - Security
- Emerging Trends and Technologies
  - The Internet
  - Physiological Interaction
  - Increasing Portability and Mobility
  - The Wireless Arena

Outcome Competencies and Assessment Methods:

- Each student will identify the concepts and terminology necessary for MIS.
  - Assessed by Examinations
- Each student will explain the components of the MIS framework.
  - Assessed by Detailed written report
- Each student will solve business problems in management information systems.
  - Assessed by Essay questions based on case studies in MIS
- Each student will design a variety of MIS systems.
  - Assessed by Detailed written report
- Each student will research and evaluate an information system related to their profession/major and report their findings in writing.
  - Assessed by Final project
- Each student will demonstrate the ability to present professional-quality oral presentations
  - Assessed by formal presentations for individual assignments and class projects

Course Number: BISM 3400
Course Title: Database Design and Development
Credit Hours: 3
Prerequisites: BISM 2200
Ownership: FSU
Status: Required for Major in Information Systems

Course Description for Catalog:

BISM 3400 This course covers information systems design and implementation within a database system environment. Students will be introduced to relational database technology through the use and application of terminology, technical concepts, data modeling, structured query language (SQL), and database implementation. The course includes hands-on experience with data modeling and working database management systems. PR: BISM 2200

Detailed course outline:

- Background
  - Introduction to Databases
  - Database Environment
  - Database Architectures and the Web
- The Relational Model and Languages
  - The Relational model
  - Relational Algebra and Relational Calculus
  - SQL: Data Manipulation
  - SQL: Data Definition
  - Query-By-Example (QBE)
- Database Analysis and Design
  - Database System Lifecycle
  - Entity–Relationship Modeling
  - Enhanced Entity–Relationship Modeling
  - Normalization
  - Advanced Normalization
- Methodology
  - Conceptual Database Design
  - Logical Database Design for Relational Model
  - Physical Database Design for Relational Databases
  - Monitoring and Tuning the Operational System
- Business Intelligence Technologies
  - Data Warehousing Concepts
  - Data Warehousing Design
  - OLAP
  - Data Mining
- Selected Database Issues
  - Security and Administration
  - Professional, Legal, and Ethical Issues
  - Transaction Management
  - Query Processing

Outcome Competencies and Assessment Methods:

- Each student will identify database concepts and terminology.
  - Assessed by Written tests
- Each student will analyze the components of a database system.
  - Assessed by Essay examinations
- Each student will use SQL to query/add/edit/delete data and create or drop tables and indexes.
  - Assessed by Classroom demonstrations
- Each student will create a normalized relations database model.
  - Assessed by Classroom demonstrations
- Each student will transform data models into database designs.
  - Assessed by Classroom demonstrations
- Each student will demonstrate the ability to present professional-quality oral presentations
  - Assessed by formal presentations for individual assignments and class projects

Course Number: BISM 3600
Course Title: E-commerce and Web Development Strategy
Credit Hours: 3
Prerequisites: BSIM 3000, BSIM 3200, BISM 3400
Ownership: FSU
Status: Required for Major in Information Systems

Course Description for Catalog:
BISM 3800 This course covers emerging online technologies and trends and their influence on the electronic commerce marketplace. Students will learn building blocks of web technology and various revenue models and their application in a variety of sectors and industries. This course will also explore current issues surrounding electronic commerce and electronic business including security, privacy, and search engine optimization. Finally, students will learn how to plan for electronic commerce .. PR: BSIM 3000, BSIM 3200, BISM 3400

Course description for catalog

- Introduction to Electronic Commerce
  - Economic forces and electronic commerce
  - Electronic commerce opportunities
- Technology Infrastructure: The Internet and the World Wide Web
  - Markup Languages and the Web
  - Internet connection options
- Selling on the Web: Revenue Models and Building a Web Presence
  - Revenue models
  - Revenue strategy issues
- Marketing on the Web
  - Web marketing strategies
  - Search engine positioning
- Business-to-Business Strategies
  - Electronic data interchange
  - Electronic market places and portals
- Online Auctions, Virtual Communities, and Web Portals
  - Auction overview
  - Virtual communities
- The Environment of Electronic Commerce: Legal, Ethical, and Tax Issues
  - Online crime, terrorism, and warfare
  - Ethical issues
- Web Server Hardware and Software
  - Web server basics
  - Software for Web servers
  - Web server hardware
- Electronic Commerce Software
  - Web hosting alternatives
  - Advanced functions of electronic commerce software
- Security for Electronic Commerce
  - Online security overview
  - Security for server computers

Outcome Competencies and Assessment Methods:
- Students will identify and discuss major concepts, tools, techniques, and methods of electronic commerce.
  - Assessed by Essay examinations
- Students will identify successful electronic products and services.
  - Assessed by Written tests
- Students will identify and apply various web development technologies and practices.
  - Assessed by a detailed written report
- Students will identify the accounting, privacy and security processes that are needed to protect an online business.
  - Assessed by Essay examinations
- Students will be able to plan, design, and prototype a significant e-commerce web project.
  - Assessed by a final project

Course number: BISM 3800
Course Title: Object-oriented Business Applications
Credit Hours: 3
Prerequisites: BISM 3000, BISM 3400
Ownership: FSU
Status: Required for Major in Information Systems

Course description for catalog:
BISM 3800 This course introduces multitier programming in Visual Basic. Students will apply object-oriented programming techniques for developing the presentation, business, and data tiers for database application projects. The emphasis of projects is on business applications. PR: BISM 3000, BISM 3400

Detailed course outline:

- Review of the .NET Framework
  - Visual Studio IDE
  - Assembly Attributes
  - Multiple Document Interface
- Introduction to Data Structures
  - Arrays
  - Constants and Enumerations
  - Structures
  - Collections
- Advantages of Object-Oriented Programming versus Procedural Programming
  - Object-Oriented applications using User-Defined Classes
  - New classes using Inheritance
  - Exception handlers for Error Trapping in Multi-tier Programs
- Windows Database Applications
  - ADO.NET Data Components – TableAdapters, DataSets, DataConnectors
  - Data Displays – Grid versus Details View
  - Record Selection from a List
  - Data Sorting
  - Stored Procedures
  - Data Tiers
- Windows Database Applications Using Related Tables
  - Queries and Filters
  - Table Lookups
  - Unbound Data Fields
  - Junction Tables
- Windows Database Updates
  - Simple Data Updates – Grid versus Individual Controls
  - BindingSource Object
  - Data Validation and Exception Handling
  - Related Table Updates

Outcome Competencies and Assessment Methods:

- Each student will apply the concepts of object-oriented programming, data structures, and classes to design and develop programming projects for displaying and updating external data sources.
  - Assessed by homework assignments, quizzes, exams and class projects
- Each student will apply exception handling techniques to multi-tier programs for error-trapping.
  - Assessed by homework assignments, quizzes, exams and class projects
- Each student will interact with a customer to elicit requirements to solve a database application-related business problem for their profession/major and report their findings in writing.
  - Assessed by class project reports
- Each student will develop the presentation, business and data tiers for a multitier database application to solve a business-related problem related to their profession/major.
  - Assessed by homework assignments and class projects
- Each student will demonstrate the ability to present professional-quality oral presentations
  - Assessed by formal presentations for individual assignments and class projects

Course number: BISM 4000
Course Title: Global, Economic, Ethical, and Social Information Systems
Credit Hours: 3
Prerequisites: BISM 3200, ENGL 1108- Writing intensive course.
Ownership: FSU
Status: Required for Major in Information Systems

Course description for catalog:
BISM 4000 This course explores the tools students will need when confronted with ethical decisions in their role as global technology professionals. Students will address a variety of economic, ethical, and social frameworks in a global context. Case studies are used to foster discussions on subjects specifically related to computers and information systems. The course explores information technology in its social, economic, ethical, and global contexts. The student will be required to participate in class discussions, cases studies, and present a research paper on the issues surrounding computing and a national and international society. PR: BISM 3200, ENGL 1108

Detailed course outline:

- Introduction
  - Global, Economic, Social cultural, Ethical Framing conceptions, metaphors organizing study & discussion
  - Basic definitions for the course
  - Issues of information use and information systems
  - The person and social cultural environments
  - Observations & warranted observations, questions, and reports
- Globalization Framing Conception and Technologies
  - Integration of Markets
  - Integration of Nation-States
  - Integration of National and International Corporations
  - Richness of Information vs. Reach
- Economic Framing Conception
  - The cost of having information
  - The cost of not having information
  - The cost of information overload
- Social Cultural Framing Conception
  - A shared system of meanings
  - Patterns of thinking, feeling, and acting
  - What distinguishes the members of one group or category of people from others
  - Systems that people use to organize their behavior
  - Systems that people use to understand themselves and others
  - Systems that people use to make sense out of the world and society
  - Culture as a system of meaning
  - Uses, Abuses, and Social Consequences
- Ethical Framing Conception & Ethical Concerns
  - Ethics is a formal, systematic, and explicit articulation, a theory, of the moral frame of human behavior
  - Obligatory
  - Ethical (morally right) acts and pleasure or happiness
  - Utilitarian Frame of Reference
  - Deontological Frame of Reference
  - Eudemonistic frame of Reference
  - Frameworks for ethical and policy analysis
- Democracy in Cyberspace & the Information Society
  - Cyberspace issues
  - Intellectual property & the Value of Work
  - Intellectual property issues: Software ownership
  - Intellectual property issues: Digital music, interconnectivity, and trespass
- Issues in the Information Age
  - Privacy and information access issues
  - Information System Reliability & Safety
  - Liability, reliability, and safety issues
  - Information Access for digital life
  - Fair competition and Internet access issues

    - Technology Areas of Concern: IS Jobs and Recession
- Information System Security
    - Security and cybercrime issues
    - Freedom, Privacy, and Control
    - Piracy and Ownership

Outcome Competencies and Assessment Methods:

- Each student will identify the global, economic, social, and ethical concepts present in a digital society information systems society.
    - Assessed by Examinations
- Each student will apply the concepts of an analytic system for analysis and discussion of Global, Economic, Ethical, and Social IS issues.
    - Assessed by Detailed written report
- Each student will demonstrate an understanding of their role and themselves as a future information systems professional living in a digital world.
    - Assessed by Detailed written assignments
- Each student will critically analyze and in writing describe and discuss IS computing issues.
    - Assessed by Detailed written report
- Each student will apply individually as well as in small and large groups the concepts related to Global, Economic, Ethical, and Social IS issues.
    - Assessed by Final project
- Each student will demonstrate the ability to present professional-quality oral presentations
    - Assessed by formal presentation of the final project

***WRITING INTENSIVE COURSES (WIC)**

The Fairmont State Liberal Studies Curriculum indicates that "students will be required to complete at least one designated writing intensive course as part of their liberal studies program or their major field of study. This course will not be in addition to their other courses, but rather a course from those approved as liberal studies or majors courses."

Summary of BISM 4000 Assessment Methods for Meeting Writing Intensive Course Criteria

Criteria for WIC	Course Outcome	Assessment Method
Prerequisites- English 1104 and English 1108		• Completion of English 1104 an 1108 are part of the prerequisites for BISM 4000. This will be enforced by the FSU course registration system
An enrollment cap of 20 students		• This will be enforced by the FSU course registration system
At least 30% of the course grade must be based on writing assignments.	• Each student will apply the concepts of an analytic system for analysis and discussion of Global, Economic, Ethical, and Social IS issues. • Each student will demonstrate an understanding of their role and themselves as a future information systems professional living in a digital world. • Each student will apply individually as well as in small and large groups the concepts related to Global, Economic, Ethical, and Social IS issues.	• As demonstrated by the course outcomes - 90% of the course grade will be derived from written assignments.
A minimum of twenty pages of written work will be assigned in a variety of formal and informal writing assignments and formats throughout the semester. This might include, but is not limited to: research reports, critical essays, laboratory reports, logs, journals, or short in-class responses.	• Each student will apply the concepts of an analytic system for analysis and discussion of Global, Economic, Ethical, and Social IS issues. • Each student will demonstrate an understanding of their role and themselves as a future information systems professional living in a digital world. • Each student will apply individually as well as in small and large groups the concepts related to Global, Economic, Ethical, and Social IS issues.	• Assessed by detailed written reports and written assignments • Assessed by two page detailed written reports • Assessed by a series of five mini research papers of at least three pages in length.
The instructor will provide opportunities for substantial revision in which the student responds to instructor feedback as well as discipline-specific writing instruction.	• Each student will apply individually as well as in small and large groups the concepts related to Global, Economic, Ethical, and Social IS issues.	• Assessed by a series of detailed draft revisions that culminate in five detailed written reports of three pages in length.

Course number: BISM 4200
Course Title: Systems Analysis and Design
Credit Hours: 3
Prerequisites: BISM 2600, BISM 3600, BISM 3800
Ownership: FSU
Status: Required for Major in Information Systems

Course description for catalog:
BISM 4200 Students are introduced to the theory and application of systems analysis and design techniques for computerized information systems. Topics covered include requirements collection and analysis, logical and physical information flow modeling, a variety of system development methodologies, data modeling, object oriented analysis and modeling, prototyping, project control, sampling techniques, project feasibility, cost/benefit analysis, time value of money, and the hands-on application of systems design techniques through a course project. PR: BISM 2600, BISM 3600, BISM 3800

Detailed course outline:

- Role of the Systems Analyst
  - Types of Systems
  - Integrating Technologies for Systems
  - Need for Systems Analysis and Design
  - Roles of the Systems Analyst
  - The Systems Development Life Cycle
  - Using Case Tools
  - Upper and Lower CASE
  - Object-Oriented Systems Analysis and Design
  - The Agile Approach and Alternative Methodologies
- Organizational Style and Its Impact on Information Systems
  - Organizations as Systems
  - Depicting Systems Graphically
  - Use Case Modeling
  - Levels of Management
  - Organizational Culture
- Project Management
  - Project Initiation
  - Determining Feasibility
  - Activity Planning and Control
  - Computer-Based Project Scheduling
  - Function Point Analysis
  - Managing Analysis and Design Activities
  - Agile Development
- Information Gathering
  - Interviewing
  - Joint Application Design
  - Using Questionnaires
  - Sampling
  - Investigation
  - Observing a Decision Maker's Behavior
  - Observing the Physical Environment
- Agile Modeling and Prototyping
  - Prototyping
  - Developing a Prototype
  - Users' Role in Prototyping
  - Rapid Application Development
  - Agile Modeling
  - Comparing Agile Modeling and Structured Methods
- The Analysis Process
  - The Data Flow Approach to Human Requirements Determination
  - Developing Data Flow Diagrams
  - Logical and Physical Data Flow Diagrams
  - Creating a Physical Data Flow Diagram
  - Partitioning Web Sites

- Communicating Using Data Flow Diagrams
- The Data Dictionary
- The Data Repository
- Creating a Data Dictionary
- Using the Data Dictionary
- Process Specifications
- Structured English
- Decision Tables
- Decision Trees
- Structured Decision Analysis Technique
- Physical and Logical Process Specifications
- Ascertaining Hardware and Software Needs
- Identifying and Forecasting Cost and Benefits
- Comparing Costs and Benefits
- The Systems Proposal
- Presenting the Systems Proposal

- Object Oriented Systems Analysis and Design
  - Object-Oriented Concepts
  - UML Concepts and Diagrams
  - Use Case Modeling
  - Activity Diagrams
  - Sequence and Communication Diagrams
  - Class Diagrams
  - Statechart Diagrams
  - Packages and other UML Artifacts

Outcome Competencies and Assessment Methods:

- Each student will identify Systems Analysis and Design concepts and terminology.
  - Assessed by Examinations
- Each student will analyze the components of an information system.
  - Assessed by Detailed written report
- Each student will use a variety of data models to visualize and report on information system designs.
  - Assessed by Detailed written assignments
- Each student will evaluate an information system and construct a report as part of a group.
  - Assessed by Detailed written report
- Each student will create a requirements document, statement of work, process model, project plan, data model, use case model, UML model, feasibility analysis and system proposal.
  - Assessed by Final project
- Each student will demonstrate the ability to present professional-quality oral presentations
  - Assessed by formal presentations for individual assignments and class projects

Course Number: BISM 4300
Course Title: Business Intelligence
Credit Hours: 3
Prerequisites: Instructor Approval
Ownership: FSU
Status: Elective Course

Course Description for Catalog:
This course is an overview of the business intelligence process including information collection, intelligence analysis, and intelligence process assessment. According to the Gartner Group, "In a data-rich world, businesses are inundated with information. Yet used strategically, it can guide decision making and boost performance. That's why Business Intelligence is on every CIO's must-have list." This course is based on not merely learning concepts, but also applying those concepts to facilitate business processes in a team effort. PR: Junior/Senior Status or Instructor Approval

Detailed course outline:

- Introduction to Business Intelligence (BI)
  - The Changing Business Environment and Computerized Decision Support
  - Framework for BI
  - Intelligence Creation and Use and BI Governance
  - Major Theories and Characteristics of BI
  - Competitive Intelligence
  - Implementation
- Data Warehousing (DW)
  - Definitions and Concepts
  - Process Overview
  - Architectures
  - Data Integration and the Extractions, Transformation, and Load (ETL) Process
  - Development
  - Real-Time DW
  - Administration and Security Issues
- Business Analytics (BA) and Data Visualization
  - Overview of the BA Field
  - Online Analytical Processing (OLAP)
  - Reports and Queries
  - Multidimensionality
  - Advanced BA
  - Data Visualization
  - Geographic Information Systems (GIS)
  - Real-Time Business Intelligence Automated Decision Support (ADS) and Competitive Intelligence
  - BA and the Web
  - Usages, Benefits, and Success of BA
- Data, Text, and Web Mining
  - Data Mining Concepts and Applications
  - Data Mining Techniques and Tools
  - Data Mining Project Processes
  - Text Mining
  - Web Mining
- Business Performance Management (BPM)
  - Overview
  - Strategy
  - Plan
  - Monitor
  - Act and Adjust
  - Performance Measurement
  - Methodologies
  - Architecture and Applications
  - Performance Dashboards
  - Business Activity Monitoring (BAM)
- Neural Networks for Data Mining
  - Basic Concepts

    - Artificial Neural Networks (ANN)
    - Biological and Artificial Neural Networks
    - Elements of ANN
    - Backpropagation
    - Neural Network Structure
    - Parallel Processing
    - Network Information Processing
- Business Intelligence Competency Centers (BICC)
    - Overview
    - Primary Functions
    - Planning a BICC
    - Culture (Knowledge Management)
    - Sigmoid (logical activation) Function
    - Hidden Layer
    - The Supervised and Unsupervised Learning Algorithm
    - The Adaptive Resonance Theory (ART)
    - How a Neural Network (NN) Learns
    - Developing Neural Network-Based Systems
    - Testing
    - Implementation
    - Hopfield Networks
- Other Neural Network Paradigms

Course Competencies:
Upon completion of this course, the student will be able to:

- Demonstrate a basic understanding of the functional areas of business.
    - Assessed by classroom and online discussions, emails, and exams
- Demonstrate an understanding of the theoretical material associated with business strategy and intelligence gathering functions and processes.
    - Assessed by classroom and online discussions, emails, and exams
- Apply theories in the formulation of a business intelligence system within an organization.
    - Assessed by classroom and online discussions, emails, and exams
- Recognize the business intelligence manager's role and develop a more accurate perception of what is involved in the entire process of BI.
    - Assessed by classroom and online discussions, emails, and exams
- Identify the legal and ethical constraints governing business intelligence professionals.
    - Assessed by classroom and online discussions, emails, and exams
- Demonstrate written communication skills
    - Assessed by writing a Major Project Outline, developing a PowerPoint Presentation and writing an Executive Summary; e-mails and discussions online; and, assignments and major team projects requiring written executive summaries and notebooks
- Demonstrate oral communication skills in class, successful interaction within a team environment, and individual presentation of a topic in a team Major Project Presentation.
    - Assessed by in-class discussions and oral major project presentations
- Demonstrate teamwork skills through participation in a Major Research Project presentation.
    - Assessed by major team research project participation

Course number: BISM 4400
Course Title: Current Topics in Information Systems
Credit Hours: 3
Prerequisites: BISM 3200
Ownership: FSU
Status: Required for Major in Information Systems

Course Description:
BISM 4400 This course investigates current topics in information systems. Current topics of interest in information systems will be selected by the instructor and approved by the department. Examples of topics include telecommunications, grid computing, health informatics, data visualization, etc. PR: BISM 3200

The following provides an example of the description and outline for a current hot topic that would be presented:

Sample course description for a suggested Current Topic in Information Systems
Telecommunications - This course explores the background of a telecommunications infrastructure including hardware, software, network models, technologies, wireless area networks, backbones, internets, design, and management, and carrier transport services in a business organization. The basic elements of a telecommunications infrastructure along with the architecture, applications and end-user devices are covered. The course will look at emerging telecommunications technology relating to transport lines, features, multi-function data systems, network models, protocols, and bandwidth.

Detailed course outline:

- Data Communications
  - History of Communications in North America
  - Hardware
  - Software
  - Data Communications Networks
  - Data Transmission
  - Network Models
  - Standards
  - Trends
- Fundamentals
  - Application Layer
  - Physical Layer
  - Data Link Layer
  - Network and Transport Layers
- Technologies
  - Local communications networks
  - Wireless communications networks
  - Backbone communications networks
  - Wide Area communications networks
- Network Management
  - Security
  - Design
  - Management
  - Protocols
- Communications Services
  - Transport
  - IXC
  - LATA
  - DSL
  - Economic Impact
  - Social Impact
- Regional Telecommunications
  - LECs
  - CLECs

Outcome Competencies and Assessment Methods:
- Each student will recognize telecommunication concepts, terminology, and background.
  - Assessed by Examinations

- Each student will analyze the components of a telecommunication system.
    - Assessed by Detailed written report
- Each student will use a variety of models to visualize develop a telecommunication systems design.
    - Assessed by Detailed written assignments
- Each student will create a telecommunications system.
    - Assessed by Detailed written assignments
- Each student will evaluate the three major components of telecommunications and construct a report.
    - Assessed by Final project
- Each student will present an individual project or a portion of a group project.
    - Assessed by Professional presentation of the final project

Course number: BISM 4800
Course Title: Information Systems Project Management
Credit Hours: 3
Prerequisites: BISM 4200
Ownership: FSU
Status: Required for Major in Information Systems

Course description for catalog:
BISM 4800 This course explores best practices in formal project management concepts and techniques. Students will learn the Project Management process areas and Knowledge Management areas as defined by the Project Management Body of Knowledge (PMBOK). The project outputs and required documentation for each process area are emphasized. The project management concepts and techniques presented in the course will be applied to group projects. Students will apply project management software to manage an information systems-related project. PR: BISM 4200

Detailed course outline:

- Introduction to Formal Project Management
  - Project Attributes
  - Organizational Structure
  - The Triple Constraint
  - Project Management Processes
  - Project Management Knowledge Areas
  - Project Management Tools and Techniques
  - Project Success
  - Project Management Certification
  - Ethics in Project Management
  - Differences between Project, Program and Portfolio Management
  - Project Management Software Applications
- Project Selection
  - Strategic Planning
  - Competitive Strategy and Broad Organizational Needs
  - SWOT Analysis
  - Four-stage Planning Process
  - Financial Projections
  - Weighted Scoring Model
  - Balanced Scorecard
  - Problems, Opportunities and Directives
  - Project Time Frame
  - Project Priority
- Project Initiation
  - Mapping Process Groups to Knowledge Areas
  - Commitment from Top Management
  - Organizational Standards
  - Stakeholder Analysis
  - Business Case
  - Project Charter
  - Project Kick-off Meeting
  - Preliminary Scope Statement
- Project Planning
  - Team Contracts
  - Project Management Plan
  - Scope Management Plan
  - Work Breakdown Structure
  - Milestone Schedule
  - Network Diagrams
  - Critical Path Analysis
  - Cost Estimates
- Project Execution
  - Execution Outputs
  - Deliverables
  - Implementation of Problem Solutions
  - Work Performance Information

    - Work Change Requests
    - Corrective Action Recommendations
    - Motivation Theory and Team Building
    - Staffing Issues
    - Team Performance Assessment
    - Project Procurement Management
- Project Monitoring and Control
    - Monitoring and Controlling Outputs
    - Scope Verification and Control
    - Accepted and Unacceptable Deliverables
    - Schedule Performance Measures
    - Quality Control Measures
    - Earned Value Management
    - Tools and Techniques for Managing Project Teams
    - Performance Reporting
    - Issue Logs
    - Risk Registers
- Project Closing
    - Project Closing Outputs
    - Documentation of Customer Acceptance/Project Completion
    - Final Report
    - Transition Plan
    - Lessons Learned Report
    - Written Notice of Closed Contract
    - Project Closing Best Practices

Outcome Competencies and Assessment Methods:

- Each student will describe the five process areas and nine knowledge management areas for project management as defined by the PMBOK.
    - Assessed by homework assignments, quizzes, and exams.
- Each student will explain the main tasks and outputs related to initiating, planning, executing, monitoring and controlling, and closing projects.
    - Assessed by homework assignments, quizzes, and exams.
- Each student will apply project management concepts by working on a team project as a project manager and/or active member.
    - Assessed by team project assignments and various evaluation feedback including self-evaluation, peer evaluation, customer evaluation, and instructor evaluation.
- Each student will use project management software such as Microsoft Project to help plan and manage a project.
    - Assessed by homework assignments, quizzes, exams and team project assignments.
- Each student will demonstrate the ability to present professional-quality oral presentations
    - Assessed by formal presentations for individual assignments and class projects

Course number: BISM 4900
Course Title: Internship in Information Systems
Credit Hours: 3
Prerequisites: Instructor Approval
Ownership: FSU
Status: Elective Course for Major in Information Systems

Course description for catalog:
BISM 4900 This internship course is designed as a learning experience which requires the integration of information systems theory with actual job experience. The student must be enrolled in the Information Systems Management program. The employer will be responsible for evaluating and reporting the performance of the student. PR: BISM 4200 and Instructor Approval

Detailed course outline:

- Professional Resume Preparation
  - Professional resume draft
  - Technical review feedback
  - Final resume
- Internship Summary
  - Description of the organization, purpose, mission, brief history, and structure
  - Definition of role as an intern and any expectations by the employee supervisor
  - Description of duties and responsibilities
  - Communication plan
  - Formal organizational chart
- Abstract
  - Technical Article Abstract - review of professional publications or journals
- Professional Meeting Review
  - Attendance at three professional meetings
  - One-page summary for each meeting attended
- Weekly Journal
  - Weekly journal entries
  - Description of daily activities and accomplishments
  - Summary of lessons learned
  - Reflection of feelings/thoughts/insights into the job
- Formal Presentation
  - Formal presentation of the internship experience
- Final Paper
  - Final paper as the culmination of the internship experience
  - Description of the internship experience focusing on skills and knowledge needed
  - Brief description of the job
  - General summary of duties and responsibilities
  - General summary of internal and external environment
  - Description of primary clients or customers
  - Significant projects, proposals, or specific work assignments completed by the intern
  - Personal assessment of the experience
- Employer Representative Assessment
  - Narrative evaluation of the intern's performance – Strengths and weaknesses
  - Employer Survey of Internship Experience

Outcome Competencies and Assessment Methods:

- Each student will demonstrate effective communication with the instructor, mentor and other professionals in the field.
  - Assessed by formal communication plan for internship project and mentor evaluation.
- Each student will apply information systems concepts to a project within a professional work environment.
  - Assessed by internship project
- Each student will demonstrate effective technical writing skills
  - Assessed by weekly journal entries, a technical abstract, and a final report for the internship experience.
- Each student will demonstrate the ability to present professional-quality oral presentations
  - Assessed by formal presentation for class project

Appendix C.1
Proposed Information Systems Management Program
Model Schedule

Freshman Year

1st Semester

Course	Title	Credit Hours
ENGL 1104	Written English I	3
ECON 2201	Econ Prin. & Prob. I	3
BISM 1200	Introduction to Computing	3
Artistic/Creative		3
Hum		3
	Total Hours	15

2nd Semester

Course	Title	Credit Hours
ENGL 1108	Written English II	3
ECON 2202	Econ Prin. & Prob. II	3
BISM 1400	Corporate Communications and Technology	3
COMM 2202*	Intro to Communication In World of Work	3
MATH 1112	College Algebra	3
	Total Hours	15

*Comm 2202 is recommended for all School of Business students; however, Comm 2200 or Comm 2201 may also be used to satisfy this course requirement.

Sophomore Year

1st Semester

Course	Title	Credit Hours
ACCT 2201	Principles of Accounting I	3
MGMT 2209	Principles of Management	3
BISM 2200	Business Information Tools	3
BISM 2400	Operating Systems Concepts	3
Science		4
	Total Hours	16

2nd Semester

Course	Title	Credit Hours
ACCT 2202	Principles of Accounting II	3
MKTG 2204	Principles of Marketing	3
BISM 2600	Introduction to Networking Administration	3
Science		4
Free Elective		3
	Total Hours	16

Appendix C.1 (cont.)

Junior Year

1st Semester

Course	Title	Credit Hours
FINC 2201	Intro to Financial Management	3
BISM 3000	Business Programming Logic	3
BISM 3200	Management Information Systems	3
BISM 3400	Database Design and Development	3
Civ		3
Free Elective		3
	Total Hours	18

2nd Semester

Course	Title	Credit Hours
BUSN 3306	Business Law I	3
BISM 3600	E-commerce & Web Development Strategy	3
BISM 3800	Object-Oriented Business Applications	3
Civ		3
Free Elective		3
Free Elective		3
	Total Hours	18

Senior Year

1st Semester

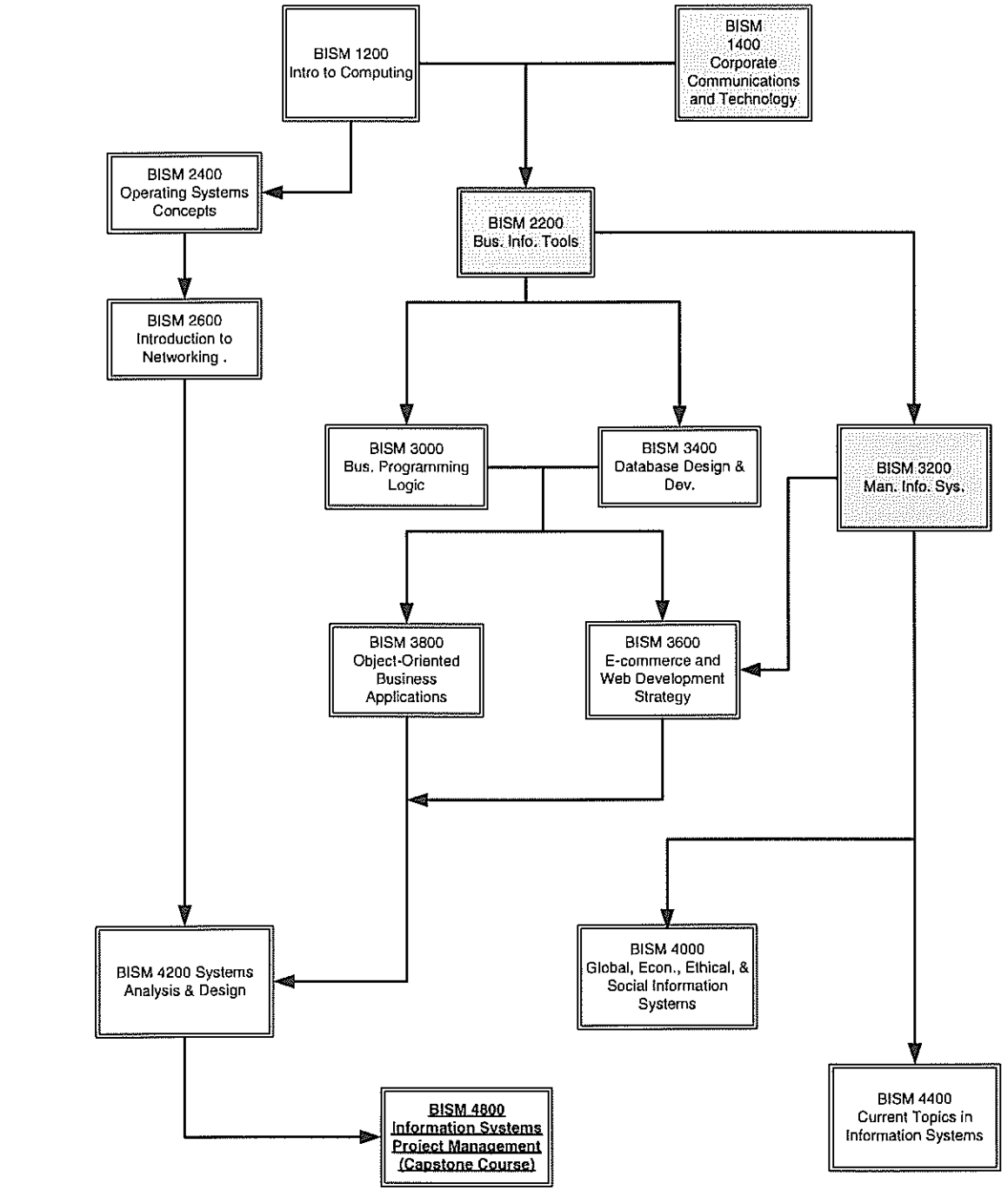
Course	Title	Credit Hours
BUSN 3310	Business & Economic Statistics	3
BISM 4000	Global, Economic, Ethical, & Social IS	3
BISM 4200	Systems Analysis & Design	3
Civ		3
Free Elective		3
	Total Hours	15

2nd Semester

Course	Title	Credit Hours
BISM 4400	Current Topics in Information Systems	3
BISM 4800	Information Systems Project Management	3
Artistic/Creative		3
Free Elective		3
Free Elective		3
	Total Hours	15
	Total Hours Required	**128**

Appendix C.2

Proposed ISM Program
Course Flow



Legend

Capstone – Bold/underlined
Business Core -

BISM 4300
Business Intelligence Elective

BISM 4900
Internship in Info. Sys. Elective

BISM 4998
Research in Info. Sys. Elective

Appendix C.3
Proposed Information Systems Management Course Rotation Schedule

	1st Year		2nd Year		3rd Year		4th Year	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
BISM 1200	**BISM 1200**		BISM 1200		BISM 1200		BISM 1200	
BISM 1400	BISM 1400	**BISM 1400**	BISM 1400	BISM 1400	BISM 1400	BISM 1400	BISM 1400	BISM 1400
BISM 2200	BISM 2200	BISM 2200	**BISM 2200**	BISM 2200	BISM 2200	BISM 2200	BISM 2200	BISM 2200
BISM 2400	BISM 2400		**BISM 2400**		BISM 2400		BISM 2400	
BISM 2600		BISM 2600		**BISM 2600**		BISM 2600		BISM 2600
BISM 3000	BISM 3000		BISM 3000		**BISM 3000**		BISM 3000	
BISM 3200	BISM 3200	BISM 3200	BISM 3200	BISM 3200	**BISM 3200**	BISM 3200	BISM 3200	BISM 3200
BISM 3400	BISM 3400		BISM 3400		**BISM 3400**		BISM 3400	
BISM 3600		BISM 3600		BISM 3600		**BISM 3600**		BISM 3600
BISM 3800		BISM 3800		BISM 3800		**BISM 3800**		BISM 3800
BISM 4000	BISM 4000		BISM 4000		BISM 4000		**BISM 4000**	
BISM 4200	BISM 4200		BISM 4200		BISM 4200		**BISM 4200**	
BISM 4400		BISM 4400		BISM 4400		BISM 4400		**BISM 4400**
BISM 4800		BISM 4800		BISM 4800		BISM 4800		**BISM 4800**
ACCT 2201	ACCT 2201	ACCT 2201	ACCT 2201	ACCT 2201	ACCT 2201	ACCT 2201	ACCT 2201	ACCT 2201
ACCT 2202	ACCT 2202	ACCT 2202	ACCT 2202	ACCT 2202	ACCT 2202	ACCT 2202	ACCT 2202	ACCT 2202
BUSN 3306	BUSN 3306	BUSN 3306	BUSN 3306	BUSN 3306	BUSN 3306	BUSN 3306	BUSN 3306	BUSN 3306
BUSN 3310	BUSN 3310	BUSN 3310	BUSN 3310	BUSN 3310	BUSN 3310	BUSN 3310	BUSN 3310	BUSN 3310
ECON 2202	ECON 2202	ECON 2202	ECON 2202	ECON 2202	ECON 2202	ECON 2202	ECON 2202	ECON 2202
FINC 2201	FINC 2201	FINC 2201	FINC 2201	FINC 2201	FINC 2201	FINC 2201	FINC 2201	FINC 2201
MATH 1112	MATH 1112	MATH 1112	MATH 1112	MATH 1112	MATH 1112	MATH 1112	MATH 1112	MATH 1112
MKTG 2204	MKTG 2204	MKTG 2204	MKTG 2204	MKTG 2204	MKTG 2204	MKTG 2204	MKTG 2204	MKTG 2204
MGMT 2209	MGMT 2209	MGMT 2209	MGMT 2209	MGMT 2209	MGMT 2209	MGMT 2209	MGMT 2209	MGMT 2209

Note: Bold-faced fonts indicate the year/semester when the course appears in the model schedule.

APPENDIX V

Information Systems Management
Minor Curriculum Proposal

INFORMATION SYSTEMS MANAGEMENT MINOR CURRICULUM PROPOSAL

Proposal Number: 10-11-12

Academic Unit: School of Business
Information Systems Management Department

Contact Person: Rebecca Giorcelli, Ph.D.
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Department Faculty: Dr. Joe Blankenship, Dr. Frank Lee, Dr. Roger Wilson

Date Originally Submitted: December 2010

Implementation Date Requested: Fall 2011

I. Proposal

This proposal requests a revision to the requirements for the Information Systems Management (ISM) minor; deletes two INFO courses from the catalog that will no longer be offered; modifies the current BISM 1400 Corporate Communications course to become a writing intensive course and to change the course number to BISM 2800 (a change in required course number for the ISM majors); corrects the prerequisite list for the BISM 4900 Internship in Information Systems course; and, changes the School of Business core course list (Refer to Appendix D).

The ISM program implemented in the Fall 2010 semester included a more rigorous pre-requisite structure than the previous Information Systems program. The ISM minor was not changed at that time but rather the numbering system for the IS minor list of courses was simply converted to the new BISM courses as defined in the new program. However, the resulting list is impractical given that students will not be able to take many of these courses unless they complete the various prerequisite courses as well. In order to correct the hidden prerequisite issue, the proposed ISM minor will list track options with a particular area of focus within Information Systems Management, including: Information Technology Management, E-commerce, Programming, Information Systems Business Management, and Accounting Information Systems. The current and proposed ISM minor requirements can be found in Appendix A.

In addition, this proposal requests to modify the current BISM 1400 Corporate Communications and Technology course such that it becomes a writing intensive course. In so doing, it is proposed (1) to list BISM 1200 and ENGL 1108 as the prerequisites to the course, (2) to change the course listing in the ISM model schedule

from the second semester of the freshman year to the second semester of the sophomore year, (3) to change the course number from BISM 1400 to BISM 2800, (4) to remove the BISM 1400 course prerequisite from the BISM 2200 Business Information Systems course, and (5) to add the BISM 2800 course as a prerequisite to the BISM 3000 Business Programming Logic, BISM 3400 Database Design and Development, and BISM 4000 Global, Economic, Ethical, and Social Information Systems courses.

The final request is simply to correct an oversight from the original ISM curriculum proposal such that the prerequisites listed for the BISM 4900 Internship in Information Systems are changed to only Instructor Approval. There was a discrepancy in the original proposal such that the prerequisites listed only Instructor Approval in the course information section but listed Instructor Approval and BISM 4200 Systems Analysis and Design in the Course Description. The current catalog lists both Instructor Approval and BISM 4200.

II. Description of Proposal

a. Deletion of courses/credits from program:

Total Hours Deleted: 21 credit hours

- **Courses to remain in the Catalog but to be deleted from the ISM Program**

Deletion of currently listed minor elective courses	*15 credit hours*
INFO 2205 Hardware and Operating Systems	3 credit hours
INFO 2250 Networking Fundamentals	3 credit hours
INFO 2251 Router Theory & Router Technologies	3 credit hours
INFO 2252 Advanced Routing & Switching	3 credit hours
INFO 2253 Project Based Learning	3 credit hours

Note: All courses being deleted from the ISM program but still remain in the catalog are Pierpont Community & Technical College courses. Dean Bacza has been notified of these changes.

- **Courses to be completely deleted from the Catalog**

Deletion of required INFO course	*6 credit hours*
INFO 2200 Fundamentals of Information Systems	3 credit hours
INFO 2235 Microsoft Applications in Business	3 credit hours

Note: The INFO 2200 and INFO 2235 are no longer required for the Business Core after the Spring 2011 semester. The BISM 3200 and BISM 2200 will be used to substitute for these core requirements.

b. Addition of courses/credits to programs and total hours added:

Total Hours Added: 9 credit hours

Addition of courses to the minor course listing	*9 credit hours*
ACCT 3350 Accounting Information Systems	3 credit hours
BISM 4300 Business Intelligence	3 credit hours

BISM 4900 Internship in Information Systems 3 credit hours

Note: All three courses being added to the minor already exist.

c. ***Provision for interchangeable use of course(s) with program(s): N/A***

d. ***Revision of course content:***
BISM 1400 Corporate Communications and Technology (under new number BISM 2800) will be modified to formally meet the writing intensive requirements as described in Appendix B.

e. ***Other changes to existing courses such as changes to title, course number, and elective or required status.***
The proposed ISM minor would require the following 12 credit hours of courses:

BISM 1200 Introduction to Computing
BISM 2200 Business Information Tools
BISM 2800 Corporate Communications and Technology*
BISM 3200 Management Information Systems (MIS)

Creation of New Course Numbers:

*BISM 2800 will replace the current course number BISM 1400 for the Corporate Communications and Technology course.

Change in prerequisites:

BISM 1400 Corporate Communications and Technology will be removed as a prerequisite for the current BISM 2200 Business Information Tools course.

BISM 1200 Introduction to Computing and ENGL 1108 will replace the current ENGL 1104 prerequisite for the BISM 2800 Corporate Communications and Technology course.

BISM 2800 Corporate Communications and Technology will be added as a prerequisite for the BISM 3000 Business Programming Logic course.

BISM 2800 Corporate Communications and Technology will be added as a prerequisite for the BISM 3400 Database Design and Development course.

BISM 2800 Corporate Communications and Technology will replace ENGL 1108 as the prerequisite for the BISM 4000 Global, Economic, Ethical, and Social Information Systems course.

BISM 4200 Systems Analysis and Design will be removed as a prerequisite from the BISM 4900 Internship in Information Systems course.

f. *Creation of new course(s):* N/A

g. ***Attach an itemized summary of the present program(s) affected, if any, and of the proposed change(s).***

1. Describe how this proposal affects the hours needed to complete this program. Specifically, what is the net gain or loss in hours?

This proposal changes the total required hours for an ISM minor from 18 credit hours to 21 credit hours. Currently, the only required course for the Information Systems Management minor is the INFO 2200 Fundamentals of Information Systems course (3 credit hours). The remaining 15 credit hours are fulfilled from a list of eighteen (18) different courses, including five (5) INFO course offerings through Pierpont Community & Technical College (refer to Appendix A).

The proposed ISM minor course requirements include twelve (12) credit hours for the following courses: BISM 1200, BISM 2200, BISM 2800 (new course number for BISM 1400) and BISM 3200. The remaining nine (9) credit hours are to be fulfilled from a list of eleven (11) BISM course offerings and one (1) ACCT course offering. All proposed ISM minor coursework will be based upon course content developed and offered through the School of Business program at Fairmont State University.

2. Include proof that this proposal meets the degree definition policy (Board of Governors Policy #52)

N/A - The current and proposed ISM minor requirements are found in Appendix A.

3. Exceptions to the degree definition policy – N/A

III. Rationale for the Proposal

A. Quantitative Assessment:

The proposed changes to the current Information Systems Management minor requirements are necessary to address the hidden prerequisite issue. The current list of available courses includes many courses that require two to three additional prerequisite BISM courses. For example, although BISM 3600 is listed as an available course to fulfill the ISM minor, the student must successfully complete BISM 3000 and BISM 3400 prior to being enrolled in the BISM 3600 course. The proposed approach to the minor requirements addresses this issue through the recommended tracks. The tracks take into account the prerequisites such that the student can follow the track requirements as listed. For example, the proposed E-commerce track lists the three courses, BISM 3000, BISM 3400 and BISM 3600, therefore, providing the student with a course path that avoids the hidden prerequisite issue.

The current BISM 1400 Corporate Communications and Technology course is being offered for the first time during the Spring 2011 semester. The course as it currently is being offered already meets the writing intensive criteria. Therefore, this proposal will formally list the course as a writing intensive course. Appendix B provides the course description for the BISM 2800 course offering with the summary of writing intensive course criteria, outcomes and

assessments. Appendix C provides the current and proposed changes to the ISM model schedule as a result of the changes from the current BISM 1400 course to the renumbered BISM 2800 course.

B. Qualitative Assessment:

Once implemented, the revised minor requirements will strengthen the Information Systems Management (ISM) program by providing potential support to students in all program areas. In designing the revised curriculum, the attempt to structure the minor into specific tracks will better target the interest and needs of the student and his/her chosen field of study. A fundamental understanding of information systems is important to every discipline and can be an asset to the graduate developing his/her professional career. There are a variety of aspects to the field and a more focused approach for the minor will benefit the student as opposed to a random selection of courses.

The change in course number and prerequisite for the BISM 2800 Corporate Communications and Technology course will support the students pursuing a degree in Business Administration. This course is currently part of the required business core. The previously required BUSN 2251 Corporate Communications class was a writing intensive course and the proposed change to the current BISM 1400 Corporate Communications and Technology course is being made to ensure these students will continue to meet the writing intensive requirement.

The revised curriculum will not result in any immediate increased cost. Currently, the Information Systems Management program consists of three full-time faculty members and one faculty member in phased retirement. The proposed changes in the ISM minor does not change the current teaching load for the ISM faculty members.

The rationale for each modification in the curriculum is described next:

Delete INFO 2200 Fundamentals of Information Systems course from the catalog
Although the INFO 2200 course had been eliminated from the ISM program as of the Fall 2010 year, the course was still offered as part of the Business core course requirements. However, this course is being removed from the Business core requirements and will no longer be offered beyond the Spring 2011 semester.

Delete INFO 2235 Microsoft Applications in Business course from the catalog
Although the INFO 2235 course had been eliminated from the ISM program as of the Fall 2010 year, the course was still offered as part of the Business core course requirements. However, this course is being removed from the Business core requirements and will no longer be offered beyond the Spring 2011 semester.

Delete BISM 1400 prerequisite from BISM 2200 Business Information Tools course
BISM 1400 was originally listed as a prerequisite for the BISM 2200 Business Information Tools course to enforce better structure to the ISM student course scheduling and to provide some background for the students in giving formal presentations before the BISM 2200 course. However, given the proposed writing intensive status for the renumbered BISM 1400 course (BISM 2800), this course must be taken after ENGL 1108. It was also determined that the exposure to ACCESS in BISM 2200 prior to taking BISM 2800 would be beneficial for presenting the mail merge topics using ACCESS databases. Therefore, the BISM 2800 course is switched with the free elective currently listed in the model schedule.

Delete INFO 2205 Information Technology Hardware and Operating Systems from the course listing for the ISM minor
INFO 2205 is a Pierpont Community & Technical College course offering. The BISM 2400 Operating System Concepts course was developed and offered as of the Fall 2010 semester to replace the INFO 2205 course requirement for ISM majors. This course provides students with an understanding of the concepts of modern operating systems like UNIX, Windows, and Linux from a management perspective and is more appropriate for the Information Systems Management minor.

Delete INFO 2250 Networking Fundamentals from the course listing for the ISM minor
INFO 2250 is a Pierpont Community & Technical College course offering. The BISM 2600 Introduction to Networking Administration course was developed and offered as of the Fall 2010 semester to replace the INFO 2250 course requirement for ISM majors. This course addresses the components of a modern business communications network. Along with the technology, students will be presented with the problems experienced by business managers dealing with the design, deployment, and maintenance of networks. The marriage of networking technology with modern business management concepts is required of ISM program graduates and is more appropriate for the Information Systems Management minor.

Delete INFO 2251 Router Theory and Router Technologies and
INFO 2252 Advanced Routing and Switching from the course listing for the ISM minor
Both of these courses are Pierpont Community & Technical College course offerings that are technology-focused and do not directly support the Information Systems Management curriculum.

Delete INFO 2253 Project Based Learning from the course listing for the ISM minor
INFO 2253 is a Pierpont Community & Technical College course offering. The BISM 4900 Internship in Information Systems course will require an internship project with a management perspective and is more appropriate for the Information Systems Management minor.

Add ACCT 3350 Accounting Information Systems to the course listing for the ISM minor
The ACCT 3350 course is appropriate for those students wanting to pursue the Information Systems Management minor with a focus in Accounting Information Systems.

Add BISM 4300 Business Intelligence to the course listing for the ISM minor
The BUSN 3330 Business Intelligence course was developed in Fall 2005 by a Business Intelligence Curriculum Committee chaired by Dr. Roger Wilson, an Information Systems faculty member. The committee was composed of Business, Information Systems, and Intelligence Research Analysis faculty in support of the National Security and Intelligence program development. As of the Fall 2010 semester, the course was renumbered to BISM 4300 to more appropriately reflect the content and level of the course. This course is appropriate for the Information Systems Management minor and directly supports the recommended track for a Business Management focus.

Add BISM 4900 Internship in Information Systems to the course listing for the ISM minor and remove the BISM 4200 prerequisite requirement from the course

The BISM 4900 course requires the student to complete an internship in the field related to Information Systems Management. This allows students wanting hands-on work experiences to work with ISM faculty to secure an internship position. This course is appropriate for the Information Systems Management minor, specifically for those students pursuing the Information Technology Management track where hands-on experience is critical. The Instructor Approval prerequisite is sufficient. The current prerequisites for the class mistakenly read Instructor Approval and BISM 4200, a point of confusion from the curriculum proposal implemented in Fall 2010.

Change the course number for Corporate Communications and Technology from BISM 1400 to BISM 2800; list BISM 2800 as a writing intensive course; and change the prerequisite for the course from ENGL 1104 to BISM 1200 and ENGL 1108

The current BISM 1400 Corporate Communications and Technology course already meets the writing intensive criteria. Therefore, this proposal requests to formally list this course as a writing intensive course to allow the School of Business students to meet the writing intensive requirement given this course is part of the Business core. The changes necessary to do this include: (1) list BISM 1200 Introduction to Computing and ENGL 1108 as the prerequisites to the course, (2) change the course listing in the ISM model schedule from the second semester of the freshman year to the second semester of the sophomore year, (3) change the course number from BISM 1400 to BISM 2800, and (4) remove this course as a prerequisite to the BISM 2200 Business Information Systems course.

Add the BISM 2800 Corporate Communications and Technology as a prerequisite for the BISM 3000 Business Programming Logic and BISM 3400 Database Design and Development courses

This proposal removes the BISM 1400 Corporate Communications and Technology prerequisite from the BISM 2200 Business Information Tools course. In so doing, the course is no longer required prior to the upper level courses BISM 3000 Business Programming Logic and BISM 3400 Database Design and Development courses for which BISM 2200 is the prerequisite course for each. Therefore, it is proposed that BISM 2800 Corporate Communications and Technology course be added as a prerequisite to these courses.

Replace the ENGL 1108 prerequisite for BISM 4000 Global, Economic, Ethical, and Social Information Systems with BISM 2800 Corporate Communications and Technology

This proposal removes the BISM 1400 Corporate Communications and Technology prerequisite from the BISM 2200 Business Information Tools course. In so doing, the course is no longer required prior to the upper level BISM 4000 Global, Economic, Ethical, and Social Information Systems course. Since ENGL 1108, the current prerequisite for BISM 4000, will now be required prior to the BISM 2800 Corporate Communications and Technology course, the change in prerequisite from ENGL 1108 to BISM 2800 for the BISM 4000 course corrects the problem.

IV. Other Schools/Programs Affected by this Proposal

College/School	Dean	Signature
Pierpont Comm & Tech College - Information Systems Technology	Dr. Gerald Bacza	

V. Additional Comments

APPENDIX A.1

Information Systems Management Minor - *Current Requirements*

Required Minor Courses			**HRS**	**3**
INFO	2200	Fundamentals of Information Systems	3	
Select 15 hours from the following courses:			**HRS**	**15**
INFO	2205	INFO TECH–Hardware and Operating Systems	3	
INFO	2250	Networking Fundamentals	3	
INFO	2251	Router Theory & Router Technologies	3	
INFO	2252	Advanced Routing & Switching	3	
INFO	2253	Project-Based Learning	3	
BISM	1200	Introduction to Computing	3	
BISM	1400	Corporate Communications and Technology	3	
BISM	2200	Business Information Tools	3	
BISM	2400	Operating Systems Concepts	3	
BISM	2600	Introduction to Networking Administration	3	
BISM	3000	Business Programming Logic	3	
BISM	3200	Management Information Systems	3	
BISM	3400	Database Design and Development	3	
BISM	3600	E-Commerce and Web Development Strategy	3	
BISM	3800	Object-Oriented Business Applications	3	
BISM	4000	Global, Economic, Ethical, and Social IS	3	
BISM	4200	Systems Analysis and Design	3	
BISM	4400	Current Topics in Information Systems	3	

Total Required Minor Course Credit Hours	3
Total Additional Credit Hours Required	15
TOTAL CREDIT HOURS FOR ISM MINOR	18

APPENDIX A.2

Information Systems Management Minor - *Proposed Requirements*

Required Minor Courses			**HRS**	**12**
BISM	1200	Introduction to Computing	3	
BISM	2200	Business Information Tools	3	
BISM	2800	Corporate Communications and Technology	3	
BISM	3200	Management Information Systems	3	
***Select 9 hours from the following courses:**			**HRS**	**9**
ACCT	3350	Accounting Information Systems	3	
BISM	2400	Operating Systems Concepts	3	
BISM	2600	Introduction to Networking Administration	3	
BISM	3000	Business Programming Logic	3	
BISM	3400	Database Design and Development	3	
BISM	3600	E-Commerce and Web Development Strategy	3	
BISM	3800	Object-Oriented Business Applications	3	
BISM	4000	Global, Economic, Ethical, and Social IS	3	
BISM	4200	Systems Analysis and Design	3	
BISM	4300	Business Intelligence	3	
BISM	4400	Current Topics in Information Systems	3	
BISM	4900	Internship in Information Systems	3	

Required Credit Hours	12
Elective Credit Hours	9
TOTAL CREDIT HOURS FOR ISM MINOR	**21**

Recommended tracks for the Information Systems Management Minor:

IT Management Focus
BISM 2400 Operating Systems Concepts
BISM 2600 Introduction to Networking Administration
BISM 4900 Internship in IS (must complete an IT-focused internship project that is approved by ISM faculty)

E-commerce Focus
BISM 3000 Business Programming Logic
BISM 3400 Database Design and Development
BISM 3600 E-commerce and Web Development Strategy

Programming Focus
BISM 3000 Business Programming Logic
BISM 3400 Database Design and Development
BISM 3800 Object-Oriented Business Applications

IS Business Management Focus
BISM 4000 Global, Economic, Ethical & Social IS
BISM 4300 Business Intelligence
BISM 4400 Current Topics in Information Systems

Accounting Information Systems Focus
ACCT 3350 Accounting Information Systems
BISM 4000 Global, Economic, Ethical & Social IS
BISM 4400 Current Topics in IS (Accounting/Finance IS Issue)

General Information Systems Focus – any combination of additional 9 hours from the ISM minor course list

Appendix B

Course number: BISM 2800
Course Title: Corporate Communications and Technology
Credit Hours: 3
Prerequisites: BISM 1200, ENGL 1108 – Writing Intensive Course
Ownership: FSU
Status: Required for Major in Information Systems

Course Description for Catalog:
BISM 2800 This course will focus on applying technology to support technical writing, oral presentations and online communications. This includes conducting research using the online library resources, developing reports using advanced word processing report features, integrating spreadsheet and database applications within the word processing document to automate data updates, using online document sharing applications for concurrent reviews and configuration management, and preparing and giving formal presentations. In addition, the course will introduce teamwork concepts and online networking in the context of business communications. BISM 1200, ENGL 1108 – Writing Intensive Course

Detailed course outline:

- Technical Writing Resources
  - Literature Reviews
  - Reference Formatting
- Document Organization
  - Document Formatting
  - Text Formatting
  - Paragraph Formatting
- Enhancing Documents
  - Tables and Advanced Features
  - Graphic Tools
- Formal Working Teams
  - Team Roles
  - Stages of Team Development
  - Team Dynamics and Conflict Management
  - Teamwork Documentation
- Workgroup Collaboration Tools
  - Brainstorming Software Applications (such as Mindmapping)
  - Commenting Documents
  - Tools for Reviewing Multiple Documents
- Productivity Tools
  - Document Themes
  - Mail Merge
  - External Data Sources
- Desktop Publishing
  - Drawing Tools and Special Effects
  - Object Linking and Embedding
- Advanced Document Features
  - Electronic Forms
  - Document Protection and Authentication
  - Introduction to Macros
- Online Communications
  - Creating Web Pages
  - Working with XML and Blogs
  - Social and Professional Networking

Outcome Competencies and Assessment Methods:

- Each student will identify and cite appropriate resources in support of a technical report.
  - Assessed by quizzes, exams and writing assignments, including, abstracts, executive summaries, technical reports, and a research paper
- Each student will demonstrate the ability to design technical reports using advanced report features of word processing software and integrate with spreadsheet and database files, as appropriate.

    - Assessed by quizzes, exams and writing assignments including executive summaries, technical reports and a research paper
- Each student will use online configuration management tools to review/edit files for team projects.
    - Assessed by interim drafts of team project reports
- Each student will demonstrate the ability to design effective web pages
    - Assessed by individual website and a team project website
- Each student will demonstrate the ability to present professional-quality oral presentations
    - Assessed by formal presentations for individual assignments and the team project
- Each student will demonstrate applications of web-based social networking to support business functions
    - Assessed by quizzes, exams and individual assignments and team project

***WRITING INTENSIVE COURSES (WIC)**

The Fairmont State Liberal Studies Curriculum indicates that "students will be required to complete at least one designated writing intensive course as part of their liberal studies program or their major field of study. This course will not be in addition to their other courses, but rather a course from those approved as liberal studies or majors courses."

Summary of BISM 2800 Assessment Methods for Meeting Writing Intensive Course Criteria

Criteria for WIC	Course Outcome	Assessment Method
Prerequisites- English 1104 and English 1108		• Completion of English 1104 and 1108 are part of the prerequisites for BISM 2800. This will be enforced by the FSU course registration system
An enrollment cap of 20 students		• This will be enforced by the FSU course registration system
At least 30% of the course grade must be based on writing assignments.	• Each student will apply the concepts of Corporate Communications and Technology for analysis and discussion, using professional tools & techniques on Corporate Communications, Social Networking in Business, Website Development and Document Enhancement. • Each student will demonstrate an understanding of their skillsets that may be applied in their future job as a business professional. • Each student will apply individually as well as in small groups the concepts related to Corporate Communications and Technology.	• As demonstrated by the course outcomes - 50% of the course grade will be derived from written assignments.
A minimum of twenty pages of written work will be assigned in a variety of formal and informal writing assignments and formats throughout the semester. This might include, but is not limited to: research reports, critical essays, laboratory reports, logs, journals, or short in-class responses.	• Each student will apply the concepts of Corporate Communications and Technology for analysis and discussion of Corporate Communications, Social Networking in Business and Website Development. • Each student will demonstrate an understanding of their skillsets that may be applied in their future job as a business professional. • Each student will apply individually as well as in small groups the concepts related to Corporate Communications and Technology.	• Assessed by one-page written executive summaries. • Assessed by two-page detailed written reports. • Assessed by a series of mini research papers of at least three pages in length. • Assessed by a final semester project report of at least five pages in length. • A minimum of 20 pages of written work will be assigned from the combination of these writing assignments.
The instructor will provide opportunities for substantial revision in which the student responds to instructor feedback as well as discipline-specific writing instruction.	• Each student will apply individually as well as in small and large groups the concepts related to Corporate Communications, Social Networking in Business and Website Development	• Assessed by a series of detailed draft revisions that culminate in the final project report.

Appendix C.1

Information Systems Management Program

Current Model Schedule- Freshman & Sophomore Years

Freshman Year

1st Semester

Course	Title	Credit Hours
ENGL 1104	Written English I	3
ECON 2201	Econ Prin. & Prob. I	3
BISM 1200	Introduction to Computing	3
Artistic/Creative		3
Hum		3
	Total Hours	15

2nd Semester

Course	Title	Credit Hours
ENGL 1108	Written English II	3
ECON 2202	Econ Prin. & Prob. II	3
BISM 1400	Corporate Communications and Technology	3
COMM 2202*	Intro to Communication In World of Work	3
MATH 1112	College Algebra	3
	Total Hours	15

*Comm 2202 is recommended for all School of Business students; however, Comm 2200 or Comm 2201 may also be used to satisfy this course requirement.

Sophomore Year

1st Semester

Course	Title	Credit Hours
ACCT 2201	Principles of Accounting I	3
MGMT 2209	Principles of Management	3
BISM 2200	Business Information Tools	3
BISM 2400	Operating Systems Concepts	3
Science		4
	Total Hours	16

2nd Semester

Course	Title	Credit Hours
ACCT 2202	Principles of Accounting II	3
MKTG 2204	Principles of Marketing	3
BISM 2600	Introduction to Networking Administration	3
Science		4
Free Elective		3
	Total Hours	16

Appendix C.2
Information Systems Management Program
Proposed Model Schedule – Freshman & Sophomore Years

Freshman Year

1st Semester

Course	Title	Credit Hours
ENGL 1104	Written English I	3
ECON 2201	Econ Prin. & Prob. I	3
BISM 1200	Introduction to Computing	3
Artistic/Creative		3
Hum		3
	Total Hours	15

2nd Semester

Course	Title	Credit Hours
ENGL 1108	Written English II	3
ECON 2202	Econ Prin. & Prob. II	3
Free Elective		3
COMM 2202*	Intro to Communication In World of Work	3
MATH 1112	College Algebra	3
	Total Hours	15

*Comm 2202 is recommended for all School of Business students; however, Comm 2200 or Comm 2201 may also be used to satisfy this course requirement.

Sophomore Year

1st Semester

Course	Title	Credit Hours
ACCT 2201	Principles of Accounting I	3
MGMT 2209	Principles of Management	3
BISM 2200	Business Information Tools	3
BISM 2400	Operating Systems Concepts	3
Science		4
	Total Hours	16

2nd Semester

Course	Title	Credit Hours
ACCT 2202	Principles of Accounting II	3
MKTG 2204	Principles of Marketing	3
BISM 2600	Introduction to Networking Administration	3
Science		4
BISM 2800	Corporate Communications and Technology	3
	Total Hours	16

Appendix D
Changes to School of Business Core

SCHOOL OF BUSINESS

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MEMORANDUM

TO: Dr. Maria Rose
Dr. Chris Lavorata
Dr. Gerald Bacza
Fairmont State University Curriculum Committee

FROM: Richard Harvey, J.D.
Dean, School of Business

DATE: February 17, 2011

SUBJECT: Information Systems Minor

The Information Systems Minor proposal currently under consideration includes three aspects that appear to impact the business core. However, on September 2, 2010, the School of Business unanimously voted to implement these changes after approval of the Information Systems Management curriculum proposal by the Curriculum Committee and Faculty Senate last academic year. Specifically, these changes include (quoting from the ISM proposal):

- Delete INFO 2200 Fundamentals of Information Systems course... and add BISM 3200 Management Information Systems;
- Delete INFO 2235 Microcomputer Applications in Business...and add BISM 2200 Business Information Tools; and
- Delete BUSN 2251 Corporate Communications...and add BISM 1400 Corporate Communications and Technology

The INFO 2200, INFO 2235, and BUSN 2251 courses were offered for the final time this academic year in order to give students some time to transition to the new ISM program and to give the School of Business some time to adopt the changes into the Business Core. Since both of these objectives have been achieved, these three courses will not be offered again by the School of Business of Fairmont State University. It is my understanding that ownership of these courses has been transferred to Pierpont Community and Technical College.

RH/mja

Current Business Core			45 hours
ACCT	2201	PRINCIPLES OF ACCOUNTING I	3
ACCT	2202	PRINCIPLES OF ACCOUNTING II	3
BUSN	*2251*	*CORPORATE COMMUNICATIONS*	3
BUSN	3306	BUSINESS LAW I	3
BUSN	3310	BUSINESS AND ECONOMIC STATISTICS	3
BUSN	3320	INTERNATIONAL BUSINESS	3
BUSN	4415	STRATEGIC MANAGEMENT AND POLICY	3
ECON	2201	ECONOMIC PRINCIPLES & PROBLEMS I	3
ECON	2202	ECONOMIC PRINCIPLES & PROBLEMS II	3
FINC	2201	INTRODUCTION TO FINANCIAL MANAGEMENT	3
INFO	*2200*	*FUNDAMENTALS OF INFORMATION SYSTEMS*	3
INFO	*2235*	*MICROCOMPUTER APPLICATIONS IN BUSINESS*	3
MGMT	2209	PRINCIPLES OF MANAGEMENT	3
MKTG	2204	PRINCIPLES OF MARKETING	3
MATH*		1112 COLLEGE ALGEBRA (OR HIGHER MATH)	3

**Students planning to enter a graduate program in business are strongly encouraged to take Math 1190 (Calculus I) in lieu of Math 1112.*

Revised Business Core for Business Administration			45 hours
ACCT	2201	PRINCIPLES OF ACCOUNTING I	3
ACCT	2202	PRINCIPLES OF ACCOUNTING II	3
BISM	1400	CORPORATE COMMUNICATIONS AND TECHNOLOGY	3
BISM	2200	BUSINESS INFORMATION TOOLS	3
BISM	3200	MANAGEMENT INFORMATION SYSTEMS	3
BUSN	3306	BUSINESS LAW I	3
BUSN	3310	BUSINESS AND ECONOMIC STATISTICS	3
BUSN	3320	INTERNATIONAL BUSINESS	3
BUSN	4415	STRATEGIC MANAGEMENT AND POLICY	3
ECON	2201	ECONOMIC PRINCIPLES & PROBLEMS I	3
ECON	2202	ECONOMIC PRINCIPLES & PROBLEMS II	3
FINC	2201	INTRODUCTION TO FINANCIAL MANAGEMENT	3
MGMT	2209	PRINCIPLES OF MANAGEMENT	3
MKTG	2204	PRINCIPLES OF MARKETING	3
MATH*		1112 COLLEGE ALGEBRA (OR HIGHER MATH)	3

**Students planning to enter a graduate program in business are strongly encouraged to take Math 1190 (Calculus I) in lieu of Math 1112.*

The BISM courses replace INFO 2200, INFO 2235, and BUSN 2251 following a unanimous vote of the School of Business on September 2, 2010.

APPENDIX VI

Service Course Enrollments
And Success Rates

INFORMATION SYSTEMS MANAGEMENT PROGRAM

SERVICE COURSES TOTAL ENROLLMENT

Academic Year	INFO 2200	INFO 2235	Total
2006-2007			
Fall	123	180	303
Spring	122	161	283
Total	245	341	
2007-2008			
Fall	98	165	263
Spring	141	144	285
Total	239	309	
2008-2009			
Fall	154	148	302
Spring	124	233	357
Total	278	381	
2009-2010			
Fall	139	178	317
Spring	162	156	318
Total	301	334	
2010-2011			
Fall	95	127 (15)*	237
Spring	92 (5)^	136 (12)*	245
Total	192	290	
Total	1,255	1,655	2,910

Note: ^BISM 3200, * BISM 2200

INFORMATION SYSTEMS MANAGEMENT PROGRAM

SERVICE COURSES SUCCESS RATES

Academic Year	INFO 2200	INFO 2235
2006-2007		
Fall	89.8%	72.8%
Spring	89.8%	72.8%
2007-2008		
Fall	91.8%	68.9%
Spring	89.2%	78.0%
2008-2009		
Fall	83.9%	76.9%
Spring	78.2%	77.7%
2009-2010		
Fall	85.6%	74.7%
Spring	79.7%	71.0%
2010-2011		
Fall	78.9%	63.2% (73.3%)*
Spring	72.8% (100%)^	73.9% (54.5%)*
Average	84%	73%

Note: ^BISM 3200, * BISM 2200

APPENDIX VII

Extension Education/Off Campus Courses

INFORMATION SYSTEMS MANAGEMENT PROGRAM
EXTENSION EDUCATION/OFF CAMPUS COURSES
TOTAL COURSE ENROLLMENTS

			2006-2007		2007-2008		2008-2009		2009-2010		2010-2011		Total
Campus	**Course**	**Course Title**	**Fall**	**Spring**	**Fall**	**Spring**	**Fall**	**Spring**	**Fall**	**Spring**	**Fall**	**Spring**	
Caperton Center	INFO 2200	Fundamentals of Information Systems	39	29	37	39	25	37	36	37	37	20	336
	INFO 2235	Microcomputer App. in Business	19	33	20	38	20	40	20	30	20	21	261
		Total	58	62	57	77	45	77	56	67	57	41	597
Correctional Facilities	INFO 2235	Microcomputer App. in Business	14	7					20	17			44
		Total	14	7					20	17			44
Lewis County	INFO 2200	Fundamentals of Information Systems		16		21	20	18	13	24		18	130
	INFO 2235	Microcomputer App. in Business	13	14	13	8	12	19	9		9		97
		Total	13	30	13	29	32	37	22	24	9	18	227
Monongalia County	INFO 2200	Fundamentals of Information Systems		10		15		9		8			42
	INFO 2235	Microcomputer App. in Business	12	10	8		12		14		9		65
		Total	12	20	8	15	12	9	14	8	9		107
Randolph County	INFO 2235	Microcomputer App. in Business			7		13			9			29
		Total			7		13			9			29
		Total	83	119	85	121	102	123	112	125	75	59	1004

APPENDIX VIII

Compliance with Degree Definition

B.S. Degree in Information Systems Management

Analysis of Compliance with Degree Definition Policy

					Degree Definition Policy
Required Major Courses			**HRS**	**63**	
ACCT	2201	Principles of Accounting I	3		
ACCT	2202	Principles of Accounting II	3		
BISM	1400	Corporate Communications and Technology	3		
BISM	2200	Business Information Tools	3		
BISM	2400	Operating Systems Concepts	3		
BISM	2600	Introduction to Networking Administration	3		
BISM	3000	Business Programming Logic	3		
BISM	3200	Management Information Systems	3		
BISM	3400	Database Design and Development	3		
BISM	3600	E-Commerce and Web Development Strategy	3		
BISM	3800	Object-Oriented Business Applications	3		
BISM	4000	Global, Economic, Ethical, and Social IS	3		
BISM	4200	Systems Analysis and Design	3		
BISM	4400	Current Topics in Information Systems	3		
BISM	4800	Information Systems Project Management	3		
BUSN	3306	Business Law I	3		
BUSN	3310	Business and Economics Statistics	3		
ECON	2202	Economic Principles and Problems II	3		
FINC	2201	Introduction to Financial Management	3		
MKTG	2204	Principles of Marketing	3		
MGMT	2209	Principles of Management	3		
TOTAL Required Major Courses				63	
Major Electives to be offered – Not required					
BISM	4300	Business Intelligence	3		
BISM	4900	Internship in Information Systems	3		
Minor Electives			N/A		
TOTAL HOURS FOR MAJOR				**63**	**Max 65**
Required General Studies Courses					
First Year Experience				15	
BISM	1200	Introduction to Computing	3		
COMM	2202	Intro to Comm in the World of Work	3		
ENGL	1104	Written English I	3		
ENGL	1108	Written English II	3		
MATH	1112	College Algebra	3		
Artistic / Creative Expression				6	
Cultural / Civilization Exploration				9	
ECON	*2201*	*~ satisfies 3 hours Society/Human Interactions*		3	
Scientific Discovery				8	
Society / Human Interactions				3	
TOTAL GENERAL STUDIES HOURS				**44**	
TOTAL FREE ELECTIVES				**21**	**Min 21**
TOTAL HOURS				**128**	128

APPENDIX IX

Program Assessment Report

ABET Self-Study
2007 – 2008

SELF-STUDY
QUESTIONNAIRE FOR REVIEW
of the
INFORMATION SYSTEMS PROGRAM
at
FAIRMONT STATE UNIVERSITY

Fairmont State University
Information Systems Department
1201 Locust Ave, Colebank Hall Room 132
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ABET
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111 Market Place, Suite 1050
Baltimore, Maryland 21202-4012
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Fax: 410-625-2238
E-mail: cac@abet.org
www: http://www.abet.org/

I. Objectives and Assessments

Intent: The program has documented educational objectives that are consistent with the mission of the institution. The program has in place processes to regularly assess its progress against its objectives and uses the results of the assessments to identify program improvements and to modify the program's objectives.

Standard I-1. The program must have documented educational objectives.

Standard I-2. The program's objectives must include expected outcomes for graduating students.

A. Objectives

The Information Systems Department has created a mission, vision, and goals for the department as well as expected outcomes for graduating students. In addition, each course has student learning outcomes that address the specific outcomes expected of students completing each course. The outcomes are listed online on the department website, used in other print materials, and are also included in the WebCT content of Department Courses. The outcomes of each course are assessed at the course and department level (where applicable) and are discussed at monthly IS Department meetings. Some improvements have been made to update the curriculum and more are planned for implementation over the next academic year. The department is working on implementing a new comprehensive assessment for the program as a whole. The following pages include supporting material for the objectives.

IS Department

MISSION

The mission of the Information Systems Department is to educate students for professional practice within the fields of information systems, business administration, and related fields. The Department offers a practical curriculum with real-life experiences and undergraduate courses that promote critical thinking and creative discovery, encourage teamwork and leadership, and prepare students for lifelong learning. This is accomplished by a commitment to the highest possible standards of quality in the areas of teaching, learning, research, advising and service.

VISION

Our vision is to expand our role as a center for quality undergraduate education programs and research in business and in information systems generally to help fulfill the information systems needs of the State and the Nation. Our future vision is one of growth and expansion. This includes growth and expansion of current undergraduate programs and practices and also expansion into the area of quality graduate education further enhancing our ability to meet the department goals and mission.

GOALS

Our goal is to educate students who have a breadth of knowledge across the core subject matter of information systems and business and can communicate and use that knowledge constructively for the benefit of others. Objectives in furtherance of this goal include assuring in our academic programs that students obtain foundation knowledge in business, mathematics, technology, and science in order to pursue their business and science courses; gain knowledge in such a way that they can think independently and creatively; communicate their knowledge effectively to others, improve the efficiency and effectiveness of their company or any institution in which they become involved, and operate in society in a constructive, ethical and professional manner. The specific areas of focus for the department include:

Teaching - Continue to strengthen classroom teaching by (1) encouraging professors to participate in education based professional activities and workshops, (2) recognizing outstanding teaching contributions through award nominations, and (3) encouraging professors to use midterm teaching evaluations and similar devices to gain reactions to teaching as courses progress.

Research – Increase the research focus specifically in applied research and promote a high level of research involvement by (1) encouraging faculty to continue the expansion in numbers of research proposals submitted to funding agencies, (2) recognizing outstanding research contributions through award nominations, (3) encouraging professors and students to continue to publish at a high level in peer-reviewed outlets, and (4) encouraging faculty and students to disseminate the findings from their work at conferences, seminars and in the classroom.

Areas of Specialization - Continue to extend from current strengths. Over the next five years emphasis in research is likely to expand in the areas of verification and validation of software, ROI of software engineering, ... as well as legal and ethical issues involved in the design of information systems.

Curriculum - Continue to maintain an undergraduate curriculum that stresses business and information system fundamentals, assures academic rigor, provides breadth and depth in upper-level courses, strengthens problem-solving ability, and focuses on design skills consistent with the needs of business and industry. Create and then continually extend and evolve graduate courses and programs to assure their responsiveness to the ever-changing societal needs for information.

Professional Service - Encourage continued participation nationally and internationally in professional organizations including promoting committee work and executive positions, research proposal review committees, professional service to nonprofit agencies (pro bono), and in article peer-review processes.

Relations with Professions and Industry - Develop active partnerships with private and government organizations through sponsored research, collaborative efforts, exchanges at professional meetings, and through student design projects.

Relations with Other Academic Units - Develop active relationships with other academic units supporting information science and system objectives.

Student Recruitment and Retention - Continue to attract top level students to the undergraduate program from throughout the state and be responsive to the diverse needs of all students in the department through care and diligence in advising and through an emphasis on one-on-one advising by faculty.

School of Business

The Mission of the School of Business and Economics is to offer programs designed to develop student core competencies in accounting, management, marketing, economics, finance, information systems, and quantitative methods. Students acquire additional competencies in their chosen major field and learn to apply concepts of teamwork, communication, creative thinking, and adaptability for careers in positions of leadership in business, education, government, and industry.

The School of Business provides flexible programs and schedules to accommodate both traditional and non-traditional students. Smaller class sizes and individual attention from our qualified faculty are the rule rather than the exception. Many students participate in student-run organizations which provide opportunities for development of leadership skills and interaction with other students with the same interests.

The School is committed to attracting high quality students and producing high quality graduates. A graduate from FSU School of Business should be able to:

- Demonstrate proficiency in his/her major field of study;
- Compete in the job market or in graduate/professional schools;
- Function effectively as a member of a team and understand group dynamics;
- Behave ethically and understand the concept of social responsibility;
- Communicate effectively orally and in written form;
- Listen to ideas and opinions of others;
- Solve problems and make decisions;
- Think critically and analytically;
- Recognize and respond to opportunities;
- Recognize and adapt to change in a proactive manner and capitalize on opportunities for life-long learning; and,
- Understand and appreciate the importance of international business.

Fairmont State University

VISION

Fairmont State aspires to be nationally recognized as a model for accessible learner-centered institutions that promote student success by providing comprehensive education and excellent teaching, flexible

learning environments, and superior services. Graduates will have the knowledge, skills, and habits of mind necessary for intellectual growth, full and participatory citizenship, employability, and entrepreneurship in a changing environment.

MISSION

The Mission of **Fairmont State University** is to provide opportunities for individuals to achieve their professional and personal goals and discover roles for responsible citizenship that promote the common good.

The Mission of **Pierpont Community and Technical College*** is to provide opportunities for learning, training, and further education that enrich the lives of individuals and promote the economic growth of our service region and state.

*To recognize the importance of the community and technical college to the state of West Virginia, Pierpont Community and Technical College, a division of the university, has developed a separate mission statement.

CORE VALUES OF FAIRMONT STATE

In its overarching desire to help transform lives, Fairmont State values:

SCHOLARSHIP: To celebrate the joy and wonder of discovery.

- Through rigorous scholarship, we promote critical thinking from the first class through life-long learning and ensure the development of new knowledge.

OPPORTUNITY: To grow, learn, engage, and contribute.

- Through accessible, quality education, we provide opportunities to grow and to discover goals, both personal and communal.

ACHIEVEMENT: To reach personal and community goals.

- Through disciplined effort, we facilitate and honor achievement.

RESPONSIBILITY: To fulfill obligations to our selves, the learning community, our society, and the future.

- Through mutually responsible conduct, we act with integrity, we respect diversity, and we pursue an informed worldview.

MOTTO

SOAR with Fairmont State

1. Indicate below or attach to this document the program's educational objectives and expected outcomes for graduating students.

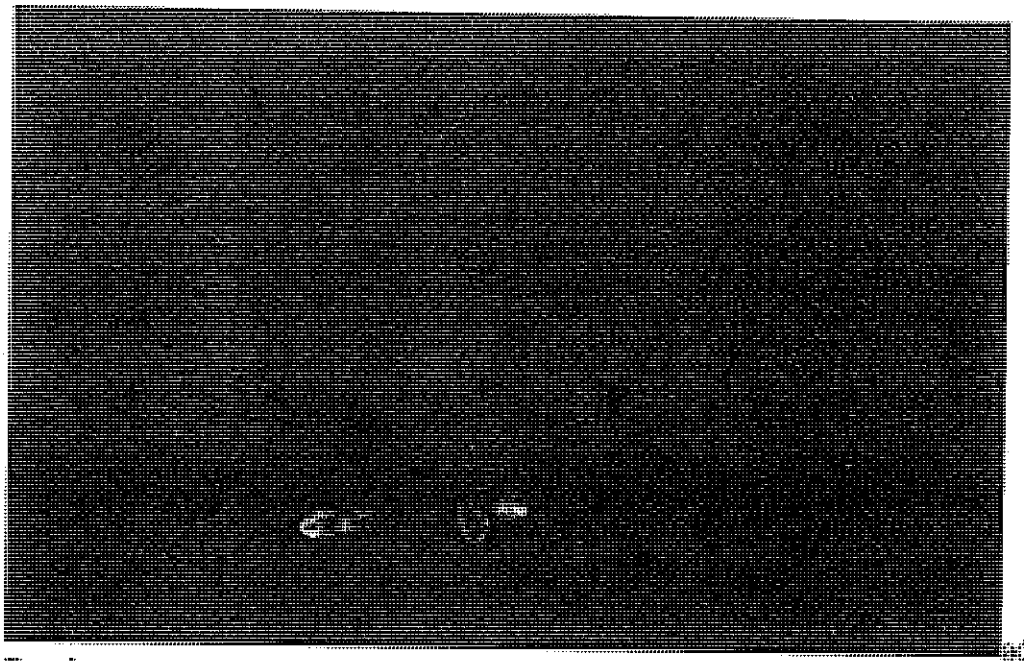
- A solid foundation in the theory and application of information systems design, development, and management;
- A background in the mathematics, computational tools, physical sciences, and business methods useful for information system professionals;
- Opportunities for creative, original and critical thinking in solving information systems problems
- Opportunities for development of strong verbal and written communication skills;
- Development of a sense of professional ethics and of responsibility to the community;
- An appreciation of interpersonal and management skills, teamwork and an ability to work collaboratively;
- Appreciation and understanding of the social, economic, political, and legal context in which professional activities are undertaken.

2. Describe how your program's educational objectives align with your institution's mission.

The objectives of the program are grounded in the School of Business and the University objectives. The IS program consistently reviews them to ensure that the intent of the IS Department is inline with the School and University. An analysis of this is included at the end of this section or is available by clicking here.

Note: On the following page is a table that can be filled out with pertinent information relating to objectives, their measurement, and their effect on the implementation of program improvements.

B. Implementation of Objectives



adapted from Huba and Freed

Objectives	How measured	When measured	Improvements Identified	Improvements Implemented
A solid foundation in the theory and application of information systems design, development, and management.	In class assessments including: assignments, activities, exams, case studies, major projects	2200, 3310, 3339, 3340, 4420, 4430		
	Major Field test in business (ETS)	Senior year		
	Performance in upper-level courses	3310, 3339, 3340, 4420, 4430		
	Performance in internships	Junior or Senior Year	IT internships sometimes cite lack of technical skills	Encourage students interested in IT to take 2206, 2251, 2252, 2253
A background in the	Entrance ACT/SAT	Pre-admission		

mathematics, computational tools, physical sciences, and business methods useful for information system professionals.	scores Compass testing (entrance) In class assessments including: Assignments, tests, exams, major projects Major Field test in business (ETS) Performance in upper-level courses Performance in internship ACT CAAP scores	 Pre-admission/ 1st year LS courses, quantitative courses, IS environment courses Senior year 3310, 3339, 3340, 4420, 4430 Junior/Senior year Varies	Student performance in 3339/3340 in quantitative and programming areas	PR change to include CS1102/Math1111 (again)
Opportunities for creative, original and critical thinking in solving information systems problems.	In class assessments including: assignments, activities, exams, major projects Internship journals Extracurricular research Summer camps (as counselors or mentors) Special IS course	2200, 2235, 3350, 3339,3340, 3310, 4420, 4430 Junior/Senior year As available As available (GIRLS, AMPLE, etc.) SPACE (report at end of this	Students cannot BEGIN critical processes	Creation of freshman courses like SPACE

	offerings (SPACE)	section or click here)		
Opportunities for development of strong verbal and written communication skills.	Class assignments including: case studies, major projects, journals Intensive Writing course completion Specific communication courses Performance in internship	2200, 2235, 3350, 3339, 3340, 3310, 4420, 4430 Varies Speech, English 1 & 2, Business Communications Junior/Senior year	Students cannot communicate effectively	Increased the written and oral communication components in the curriculum
Development of a sense of professional ethics and of responsibility to the community.	Course assignments including: assignments, case studies, major projects Affiliation with ISSO-ACM and participation in activities Extracurricular service opportunities	2200, 3310, 3350, 4420, 4430, Bus 3320 Bi-monthly meetings, dinners, tours, other events As available (Networking Service Learning Grant)		
An appreciation of interpersonal and management skills, teamwork and an ability to	In class assessments including: assignments, activities, case studies, major projects, end of course	2200, 2205, 2250, 2235, 3310, 3339, 3340, 4420, 4430		

work collaboratively.	reflection Peer Critiques of teamwork Internship journals and performance Specific business and management courses	 2200, 3310, 4420 Junior/Senior year Principles of Management, International Business, Strategic Management and Policy		
Appreciation and understanding of the social, economic, political, and legal context in which professional activities are undertaken.	In class assessments including: assignments, activities, exams, case studies, major projects Major Field test in business (ETS) Performance in internships Performance in upper-level courses Specific business courses	2200, 3310, 3350, 4420, 4430 Senior year Junior/Senior Year 4420, 4430 Business Law, Economics, International Business, Strategic Management and Policy		

Please complete the following table with as many objectives as needed.

Standard I-3. Mechanisms must be in place to periodically review the program and the courses.

Standard I-4. The results of the program's assessment must be used to help identify and implement program improvement.

C. Assessments

For each instrument used to assess the extent to which each of the objectives is being met by your program, provide the following information:

1. Frequency and timing of assessments

2. What data are collected (should include information on initial student placement and subsequent professional development)

3. How data are collected

4. From whom data are collected (should include students and computing professionals)

5. How assessment results are used and by whom

Assessment results are discussed at faculty meetings including IS Department meetings, IS/IT department meetings, and School of Business meetings. In addition, the Assessment committees of the School and the University meet and consider assessment practices and results. Results are used to improve the program and courses.

Attach copies of the actual documentation that was generated by your data collection and assessment process since the last accreditation visit (or for the past three years if this is the first visit). Include survey instruments, data summaries, analysis results, etc.

Standard I-5. The results of the program's review and the actions taken must be documented.

D. Program Improvement

Describe your use of the results of the program's assessments to identify program improvements and modifications to objectives and/or outcomes

The IS Department will complete a formal program review over the 2007-2008 academic year.

1. Any major program changes within the last five years
2. Any significant future program improvement plans based upon recent assessments

Because internship evaluations in IT areas showed a general need to additional knowledge in technical areas, students who are interested in IT or who plan to complete their internship or seek a career in IT are encouraged to take 2206, 2251, 2252, 2253

Because students were not successful completing the IS3339/3340 series after removing CS1102 as a PR and using IS2205, the PR is being changed back to include CS1102/Math1111 (again) - advisors are currently enforcing this although the catalog has not been updated.

Because students, in general, cannot think critically, freshman courses like SPACE are being designed.

Employers as well as upper-level course faculty indicated that students needed to be able to communicate more effectively in oral and written form. Increased the written and oral communication components in the curriculum

E. Program Evolution

1. Describe in what respect, if at all, the philosophy and direction of the information systems program has changed at your institution during the last five years (or since the last accreditation visit, whichever is the most recent).

The IS department is taking a more independent direction compared to previous years Former association with the Bachelor of Science in Business Administration somewhat limited the opportunities to expand the IS curriculum. With the approval of the BSIS, the program has more autonomy.

2. Describe any major developments and/or progress made in connection with the program in the last five years (or since the last accreditation visit, whichever is the most recent) that is not included in your response to Question I.C.

The Bachelor of Science in Information Systems was approved by the WV Higher Education Policy Commission. The proposal is available at the end of this section or by clicking here.

F. Program Current Status

1. List the strengths of the unit offering the information systems program.

A major strength of the unit is the faculty. Their involvement in planning and innovation makes the program stronger. In addition, the general attitude of the students, faculty, and staff at the University provides a positive environment for growth. The local environment is

also conductive to the IS program with the WV High Technology Consortium and the NASA IV&V facility located in Fairmont, WV.

2. List any weaknesses or limitations of the institution or unit offering the information systems program.

The IS department would be better served with funding specific to the program. In addition, time for administrative duties would allow more efforts and focus on program growth and improvement. As the graduate program offerings grow, course loads increase and may result in a faculty shortage.

There are no terminal degree programs offered in IS in the state of WV. There is no funding or other resources available to faculty who are seeking advanced degrees or taking courses in IS (faculty can take classes at WVU or Fairmont under a state waiver but advanced classes are not offered). It would also be beneficial to have campus support in the form of graduate assistants or other resources that would alleviate the work load presented by administration, research, overloads, or professional development.

3. List any plans for future development of the program.

Faculty are currently working on development of individual course assessment matrices.

Samples are included at the end of this section and are available by clocking below:

IS 2235

IS 3339

Faculty are developing, and will teach beginning Fall 2007, graduate project management courses in the MBA program. In addition, the Office of Research and Graduate studies is coordinating a professional master's program that will involve IS faculty.

Increased course offerings and perhaps revision of existing courses is planned - following the program review next academic year.

Information Systems 2235
Microcomputer Applications in Business

Course Description

This course will provide students the opportunity to develop and use basic decision support systems. A problem solving approach is used to introduce students to the modern business decision making process. The emphasis is on making business decisions by using and customizing off-the-shelf software

Student Learning Objectives:

1. Students should be able to understand the fundamental principles of Information Systems and recognize the effective use of information systems in a business environment.
2. Students should be able to analyze a business problem or situation and determine if and/or how computer applications could be used to enhance the decision-making process.
3. Students should be able to construct professional-quality, computer-generated documents to support a given business scenario. The application of the computer process should provide an effective and beneficial aid to the particular circumstances.

Assessment Activities

	Assessment	Frequency	SLO #
1.	Students complete group activities in class to identify specific personal uses of software in a business environment – related to their major.	8 times a semester	1
2.	Students complete ill-structured projects that are comprehensive cases based on business scenarios and require the use of skills covered in class.	3 times a semester	1
3.	Students complete objective-based testing	3 times a semester	1, 2
4.	Students complete skills-based application testing.	3 times a semester	3, 2
5.	Students present a group project to the class.	1 time a semester	1, 3
6.	Students complete skills-based training (CBT)	Daily	3
7.	Students complete skills-	Daily	3

	based projects with instructor aid		

Outline

Word Using Charts, Special Effects, and Styles.
Working in a Group Environment
Working with Tables, Graphics, and Objects
Creating Styles and Automating Mass Mailings
Ranges and Functions
Creating Charts and Diagrams
Working with Templates, Large Worksheets and Other File Formats
Checking Your Work and Collaborating With Others
Using Database Capabilities in Excel
Customizing Tables, Data Access Pages, and Converting a Database
Building and Maintaining a Relational Database
Advanced Forms and Subforms
Advanced Reports and Queries
Integrating Between Access and other Office Applications
Enhancing a Presentation With Graphic Elements
Advanced Presentation Graphic Techniques
Delivering a Presentation
Presenting Information Using Tables, Charts, and Organization Charts
Creating a Custom Presentation for Publication on the Web

Special Considerations

Students complete cases that reinforce the use of Microsoft Office in business situations

Prerequisite(s)

IS 1100

Depending Courses

Upper-level Management Courses

Frequency of Offering

Every Semester (multiple sections)

Audience

Required in all Bachelor of Science in Business Administration Majors (Part of Business Core)

Contact Hours

45

Information Systems 3339
Programming, Data and File Structures

Course Description

This course provides a problem solving approach to introduce students to object-oriented programming. Students will have the opportunity to develop and use basic programming skills with Visual Basic .NET. The emphasis is on learning basic concepts related to planning the project, designing the user interface, and developing the code. The format of the course includes: lecture, group discussions, hands-on exercises, projects, quizzes, and exams.

Student Learning Objectives:

1. Students should be able to explain the concepts of classes, objects, properties, methods and events and apply these to create object-oriented programs.

2. Students should be able to develop programs using fundamental programming principles (e.g., variables, constants, calculations, decisions, procedures, functions, lists, loop structures, and arrays)

3. Students should be able to implement proper design techniques in applying controls to create user interfaces.

Assessment Activities

	Assessment	Frequency	SLO #
1.	Students complete program application development assignments that reinforce topics covered in class.	Weekly	2, 3
2.	Students respond to group discussion questions in class regarding program application assignments to demonstrate understanding of topics.	Daily	1
3.	Students complete objective-based and skills-based formative assessments.	Weekly	1, 2, 3
4.	Students complete objective-based summative assessments.	2 times / semester	1
5.	Students present a project to the class.	2 times / semester	1, 2, 3

Outline

Intro to Visual Basic.NET
User Interface Design
Variables, Constants, and Calculations
Decisions and Conditions
Menus, Common Dialog Boxes
Sub Procedures and Function Procedures
Multiform Projects
Lists and Loops
Arrays
Object-Oriented Programs

Special Considerations

Students complete a semester project to reinforce the use of Microsoft Visual Basic .NET for business applications

Prerequisite(s)

COMP 1102, INFO 2200

Depending Courses

INFO 3340

Frequency of Offering

Every Semester

Audience

Required in all Bachelor of Science in Information Systems Majors

Contact Hours

45

Final Report

NASA Space Grant

SPACE – "Student Project Approach for Conceptual Engineering"

The Development of A Systems Thinking and Discipline Survey Course

I. Introduction

Six faculty members from Fairmont State University and the Community and Technical College worked from August 2006 to June 2007 to develop a course for freshman students that would prepare them for participation in a multi-discipline project-based learning community, enhance their capacity to solve problems, and help them better identify their choice of disciplines and career paths.

The focus of the freshman course is two-fold: (1) providing an introduction to and hands-on experience with a formalized systems approach to tasks and problem solving, and (2) providing a survey of engineering technology, business, and science disciplines at the freshman level. The task turned out to be more difficult than we anticipated, primarily due to the newness of the approach relative to our own education experiences, and the widely varying backgrounds, perspectives, and interests in the faculty team members. In other words, our faculty team was itself the epitome of the type of team our students will be associating with in their learning community and careers, and provided clear evidence of the need for and difficulties in establishing a systems thinking approach to projects and problem-solving.

The course includes several small projects for learning and practicing the principles of systems thinking (ST) and the steps of a systems approach (SA) to problem solving. It includes building a StudentSat modeled after the NASA Space Grant Consortium Balloon Satellite program and flying it in cooperation with the faculty and students of the WV NASA SGC StudentSat course at WVU. Students designed, build, launched and retrieved an electronics package as part of the payload of WVU's high altitude weather balloon launch.

Included in this report is a description and outline for the course to be offered again during the Fall 2007 semester, lessons plans for several of the discipline-based classes. The course description includes course outcomes, objectives that meet the outcomes, and an outline of the course with details of the disciplines and projects used to meet the objectives.

II. Course Description: Course Outcomes, Objectives, and Outline

began working together as a team in August, 2006 to establish a new 2 credit elective course designed for freshmen majoring in a wide range of disciplines. During the Fall 2006 semester the team met several times to develop goals and outcomes for the course, a set of required components necessary to achieve those outcomes, and an outline for the course with team member roles and responsibilities. Such an "engineering" of curriculum development was a first for all members of the team, even those with systems and engineering backgrounds, and did not go very smoothly. Nevertheless, the members gained valuable experience and insight through the process.

A. Course Outcomes

1. Freshman students will have increased capabilities to view and deal with problems and projects as systems.
2. Freshman students will become prepared to work as team members on complex projects involving multiple disciplines.
3. Freshman students will develop a clearer perspective of the nature various STEM and Business disciplines and a clearer sense of which one they want to pursue.

B. Course Objectives Necessary to Achieve the Course Outcomes

1. Lead students to an understanding of basic concepts of systems thinking*, team work and problem-solving**
2. Provide students with a project-based learning environment that facilitates a variety of projects, promotes systems thinking, and allow the practice of problem-solving processes
3. Have students work on multidisciplinary teams to solve problems and complete projects.
4. Introduce students to disciplines and professional careers involving problem solving and system analysis***.

*Basic Concepts of Systems Thinking, Team work and Problem Solving

(from "The Fifth Dimension – The Art and Practice of The Learning Organization: by Peter M. Senge)

I. Building shared vision

- Understanding the task/mission
  - What is to be accomplished
  - How does everyone know if the task has been accomplished
- Buying into the mission
  - Sharing values and concerns
  - Coming to consensus

II. Seeing the enterprise as a system

- Who are the stakeholders – those interested in accomplishing the task
- What is the role of each stakeholder
  - What are the assets to be contributed by each stakeholder/team member

Who manages/makes the decisions
Buying into the roles
What are the relationships between and within each stakeholder
How do stakeholders interact, share information, make decisions
What are the interests/issues/agendas of each stakeholder that might conflict with consensus and trust

III. The importance of personal mastery
The need for personal discipline and academic disciplines
Fulfilling your role well
Appreciating the role and efforts of others
Sweating the little stuff

IV. Using mental models
Models provided by academic disciplines
Mental models of systems
Mental models of system processes and project lifecycle
Envisioning the good and bad consequences of good intentions

V. Team learning
Everyone learns from each other
Being open minded
Learning from mistakes

**Systems Approach Steps for Projects and Problem-Solving

I. Project Scope Statement - Defining the problem to be solved (mission and goals)
II. Project System - Describe the stakeholders, the environment and nature of the system for which the problem is to be solved, including the system constraints
III. Solution Team – define the roles of the individuals on the team, their relationship with the Project system, and the time table for the project.
IV. Establish the requirements necessary to successfully accomplish the mission within the constraints, without reference to a particular solution or design
V. Design the solution based on the requirements
VI. Test the solution as designed
VII. Validation and verification at all steps
VIII. Submit for production

***Disciplines Involved

Business	Technology	Science
Project Management Information Technology	Safety Electrical Engineering Technology Graphics Design	Physics

(See Appendix A - Course Outline for discipline topics and projects)
(See Appendix B – Lesson Plans)

III. Practical Development and Teaching of the Course

The course was offered experimentally during the Spring 2007 semester on Wednesdays, 1:00 – 2:50 p.m., with team members taking turns preparing class lessons and activities and teaching to each other. Three upper level undergraduate students were invited to participate and registered for the course. They submitted regular journal entries, and provided valuable observations and advise for the team. An initial outline for the course is found in Appendix A.

A. Team teaching and peer evaluation
B. Assessments
C. Lessons learned
    1. Description of evidence used to evaluate task completion
    2. Description of assessment approach - learning and understanding
    3. Summary of weekly review feedback
D. Balloon Launch with WVU
    i. Description of experiment
    ii. Aspects of various disciplines addressed
    iii. Description of launch experience
    iv. Project Results
    v. Summary of student feedback

IV. Continuous Development & Improvement Plan

a. Plan description for recruiting and advising incoming freshmen for future semesters
b. Recommendations for course improvements/revisions based on lessons learned

The course is being offered once again in the Fall 2007 semester

Appendix A

SPACE Course Outline for Fall 2007

Wk	ST Principles & SA Steps	1st Hour (Disciplines)	2nd Hour	Documents/Deliverables at the end of each class	Assessment/Homework
1	Overview of 5 principles of systems thinking (ST)	Course overview Project – Lego Robot: (all disciplines)	Discussion - need for systems thinking Introduce disciplines of systems thinking Introduce the BalloonSat project	An outline of the five Systems Thinking principles, and a small paragraph explaining why systems thinking is important	Review questions
2	Overview of Systems Approach (SA) Steps	Introduce the SA Steps Concepts of PM aids to each step of SO (Project Management)	Project – Newspaper bridge? Include the *Project Scope Statement*; Project System, Solution Team, Requirements, design and testing	Turn in *Project Scope Statement*; Project System, Solution Team, Requirements, and design	Review questions Assign students to draft a *Project Scope Statement* and SO steps of a simple example project (e.g. another robot)
2	Practicing ST principles and all SA Steps	Learn about the atmosphere Mission to measure temp of atmosphere *PSS of CricketSat* (Physics)	CricketSat balloon requirements Project – Air pressure and balloon lift – Design & test balloons	*Turn in PSS, Requirements, design and testing of balloon subsystem*	Review questions about the function of a balloon and what CricketSat requirements it fulfills
3	Practicing ST principles and all SA Steps	Learn about temperature, scales and types of thermometers Requirements for measuring temp of atmosphere (EE Technology, Physics)	Project – Temperature Scale & Standards (thermisters and IC radio) How CricketSat meets the remote sensing requirements	*Turn in Requirements Document for measuring the temperature of the atmosphere*	Review questions Students generate graph of altitude vs temp
4	Risk Assessment as an SA step using ST vision & mental models	Basics of risk assessment Put risk and safety into BalloonSat reqmnts (Safety)	Project - Lego light bulb – apply risk assessment during project Drop and results – after class	Risk Assessment Document	Review questions Ask students to generate questions related to CricketSat risk issues
5	Personal mastery and teamwork	Soldering 101 Project - Solder CricketSat circuit (EE Technology)	Finish circuit	Circuit for inspection	
6	Vision,Teamwork testing and V&V	V & V of CricketSat Assemble (Project Mngmt, EE Tech, IT)	Launch CricketSat Collect temperature data Analysis of CricketSat Data	Turn in Completed V&V list for CricketSat;	Use temperature profile of atmosphere to determine altitude of CricketSat

7	Vision,Teamwork Reqmnts, design	Learn about Graphic Design (Graphics Design)	Put pictures and CrickSat results on a web page	*Webpage demo*	
8	Vision,Teamwork mission, reqrmnts	Introduce the BalloonSat project Write PSS and requirements (all disciplines)	Define team member roles *Risk Management Plan*	*Turn in PSS, requirements documents, and Risk Management Plan*	
9	Vision, Models reqmnts, design	Introduce *MIS* software; Design the BalloonSat package (Project Management, IT)	Begin working on BalloonSat		Review questions for the *Work* Ask students to generate questions related to BalloonSat budget issues
10	Vision, personal mastery design, testing	Continue BalloonSat work (all disciplines)	Continue BalloonSat work		Review questions Assign students to generate questions related to BalloonSat MIS issues
11		Continue BalloonSat work	Continue BalloonSat work	Launch BalloonSat on Saturday	
12		V&V of BalloonSat reqrmts using parent-daughter relationships	V&V of BalloonSat design; testing virtually Generate questions related to testing the BalloonSat project	Review questions and assign students to draft the BalloonSat *Test Plan*	Review questions Assign students to draft the BalloonSat *Test Plan*
13		Analyze Data		Review data analysis procedures	Review data analysis procedures
14		Work on presenations	Work on project close-out documentation (i.e., lessons learned, performance data archives, etc.)		
15		***Final Presentations:*** iinclude: Project Scope Statement; Requirements Document; Work Breakdown Structure; Project Schedule and Budget; Risk Management Plan; Test Plan; Data Analysis; Performance Evaluation; Lessons Learned	***Final Presentations***		
16	Finals Week	Turn in project close-out documentation (i.e., lessons learned, performance data archives, etc.)			

Fairmont State University

Intent to Create a

Bachelor of Science in Information Systems

Submitted: November 28, 2005

By Rebecca Schaupp (rschaupp@fairmontstate.edu)
And Tracie Dodson (tdodson@fairmontstate.edu)

3.7. Intent to Create

The intent of this proposal is to convert the existing Information Systems specialization currently under the umbrella of the Bachelor of Science in Business Administration degree program to that of a free standing Bachelor of Science in Information Systems degree program within the School of Business at Fairmont State University. The CIP Code for this degree will be 110401 – Information Systems/Studies.

The information systems specialization was created in 1999 as a result of the administrative transfer of the Computer Science department from the School of Business to the School of Science and Math. Since that time, the information systems specialization has grown with a current enrollment of 86 majors. It also serves many other disciplines of study on campus as well as providing an entry point for Associate degree students to continue their education through a bachelor degree. Currently, there are articulation agreements with Southern West Virginia Community and Technical College as well as the administratively linked Fairmont State Community and Technical College. In addition, a current project linking objectives of the degree to high school students in the surrounding counties is being completed (funded through a NSF grant). The admission criteria for the proposed Bachelor of Science in Information Systems will be identical to the existing Bachelor of Science in Business Administration and the University. These requirements include the following criteria by circumstances:

FIRST-TIME FRESHMEN

1. Application for Admission
2. Official high school transcript or GED (sent by high school or Department of Education) (2.5 GPA or higher)

- and -

3. ACT or SAT Scores (17 ACT or 830 SAT)
4. College Transcript (if college credit was earned during high school)
5. Immunization Records (if born after January 1, 1957)
6. Statement of Activities (if out of high school more than six months)

TRANSFERS

1. Application for Admission
2. College Transcript (from accredited institution(s); must have 2.0)
3. Official high school transcript and ACT/SAT scores if there are fewer than 30 earned credit hours being transferred

4. Immunization Records (if born after January 1, 1957)
5. Statement of Activities

POST-BACCALAUREATE STUDENT (seeking another degree)

1. Application for Admission
2. Official college transcript(s)
3. Statement of Activities
4. Immunization Records (if born after January 1, 1957)

TRANSIENT STUDENT (students enrolled at another school and returning to that institution)

1. Application for Admission
2. Course Approval Form (from your Registrar's Office)

See **Appendix C** for the Information Systems Department enrollment statistics.

Because of the demands in the Information Technology Industry and the growth of the program, the intent of Fairmont State University Information Systems Department is to develop a comprehensive stand-alone degree program of study in Information Systems that would enable attainment of ABET specialized accreditation under the standards proposed by the 2007 cycle recommendations. The program will be delivered in a traditional classroom environment.

The goal is to create a program of excellence in the area of Information Systems that would be competitive at the national level for students and outside funding. With this program of excellence distinction, would come a closer alignment with standards and assessment efforts nationally which would expand current offerings and pursuing of industry leads.

3.7.1. Objectives

The location of Fairmont State University, in Fairmont WV, is a prime location for a degree in Information Systems. Local businesses are in need of information systems skills. Businesses that would benefit from this degree include: The FBI Fingerprint Complex (approximately 10 miles south), the WV High Technology Consortium Foundation – both the actual facility and the 194 affiliate members (in and near Fairmont), Electronic Warfare Associates (in Fairmont), Lockheed-Martin (in and near Fairmont), the NASA IV&V Facility (in Fairmont), the Institute for Scientific Research (in Fairmont), and many others.

The Objectives of this Information Systems degree are to provide students with:

- A solid foundation in the theory and application of information systems design, development, and management;
- A background in the mathematics, computational tools, physical sciences, and business methods useful for information system professionals;
- Opportunities for creative, original and critical thinking in solving information systems problems
- Opportunities for development of strong verbal and written communication skills;
- Development of a sense of professional ethics and of responsibility to the community;
- An appreciation of interpersonal and management skills, teamwork and an ability to work collaboratively;
- Appreciation and understanding of the social, economic, political, and legal context in which professional activities are undertaken.

To develop learning outcomes for the area of Information Systems, both the outcomes of Fairmont State University and the School of Business were reviewed to ensure that what is taught and, ultimately, the course outcomes developed would tie into the institution and the school. After a review of these items, a match was found with four of the six University objectives and ten of the eleven School objectives. The remaining Fairmont State University objectives are met in the Liberal Studies Requirements and the final Business School objective is met in an International Business course offered by the Business School. Matching outcomes are identified below (the matching items are italicized).

Fairmont State Graduate Outcomes

Fairmont State University has designed six attributes that all graduates should have upon graduation from Fairmont State. These are:

1. ***Students should acquire an informed appreciation of the arts, the humanities, and the social and natural sciences; they should become aware of the relationships of the academic disciplines among themselves and with broader social and ethical issues.***
2. ***Students should develop competence in mathematics, oral and written communication, reading, and listening.***
3. ***Students should acquire problem-solving skills to aid them in making decisions about personal values and career strategies. They should demonstrate proficiency in their major fields of study so as to***

be competitive in the job market or gain admission to respected graduate or professional schools.

4. ***Students should have techniques for coping with the vast amounts of information available in a rapidly changing society; they should accept the necessity and pleasure of life-long learning.***
5. Students should develop sensitivity in matters of social justice, accepting and appreciating ethnic or personal differences among individuals in our society. Students should maintain an ethical view that respects the life, property, opinions, and feelings of others.
6. Students should have the knowledge and attitudes that lead to physical health and well-being.

School of Business Graduate Outcomes

The Fairmont State University School of Business has developed a profile of its graduate. This profile list includes characteristics that a graduate should have when he/she graduate with a Bachelor of Science Degree in Business Administration from Fairmont State. The profile includes competencies that were developed by the faculty of the Business School and represent what faculty expect students to gain from the collective experience of their education in the Fairmont State University School of Business. They are:

1. ***Demonstrate proficiency in his/her major field of study.***
2. ***Compete in the job market or in graduate/professional schools.***
3. ***Function effectively as a member of a team and understand group dynamics.***
4. ***Behave ethically and understand the concept of social responsibility.***
5. ***Communicate effectively orally and in written form.***
6. ***Listen to ideas and opinions of others.***
7. ***Solve problems and make decisions.***
8. ***Think critically and analytically.***
9. ***Recognize and respond to opportunities.***
10. ***Recognize and adapt to change in a proactive manner and capitalize on opportunities for life-long learning.***
11. Understand and appreciate the importance of international business.

School and University Alignment

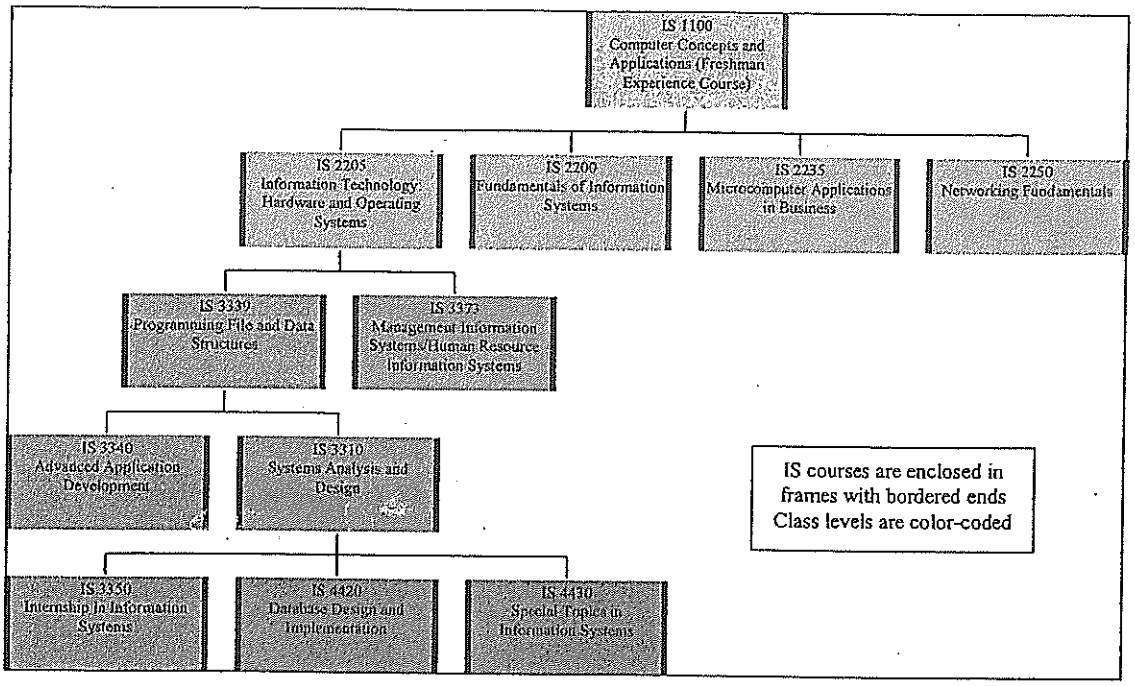
The above objectives are satisfied in the classes that will be required in the Bachelor of Science in Information Systems. Although the outcomes for the

Information Systems component do not fully meet the needs of the profiles, the combination of these outcomes with the outcomes from other majors will provide the skill set to allow a graduate to achieve the profile. Similarly, the addition of the liberal studies and major classes will allow School of Business graduates to achieve the skills required to achieve the profile of a Fairmont State University graduate.

3.7.2. Program Description

The B.S. in Information Systems will provide training in quantitative analysis, project management, computer hardware and operating systems, network architecture and management, systems analysis and design, database management techniques, programming, and other information systems topics. Students completing the Information Systems program will be able to compete for entry-level positions in information systems departments, network management, and database administration. Graduates are qualified for work as computer consultants, information systems managers, research and development engineers, software developers, logistics managers, and system or project managers. **NOTE: THIS DEGREE SPECIALIZATION HAS BEEN OPERATIVE SINCE FALL 1999 AND PRODUCED GRADUATES WITH THE DEGREE BACHELOR OF BUSINESS ADMINISTRATION. In 2003/2004 academic year, there were 23 Information Systems majors that graduated.**

The classes in the program include three main cluster components. First, as indicated above, the students must complete a liberal studies component that has been adopted by the University. This study includes freshman courses in English, speech, math, and computer concepts as well as courses in scientific discovery, cultural and civilization, artistic/creative expression and interdisciplinary studies, society and human interactions, and an intensive writing course. The second cluster of courses is a core understanding of Business. These courses include principle level course in economics, accounting, finance, marketing, management, business law, international business, statistics, microcomputer applications in business, corporate communications, and strategic management and policy. The final cluster component is in the information systems area and includes the essential understanding of information systems through courses in fundamentals, hardware, networking, and programming as well as and advanced knowledge of systems analysis, application development, database design, and other current topics in information systems (through a required special topics course). The sequence of information systems courses is shown below in a course diagram and the complete list of required courses is shown in Appendix B.



See **Appendix A** for the Information Systems Department Mission, Vision and Goals.

See **Appendix B** for the existing and proposed degree program of study.

3.7.3. Standards and Assessment

The responsibility of the assessment efforts for these outcomes falls in three areas. First and foremost, the responsibility falls on the faculty who is teaching the class. The department is currently finalizing outcomes for each course. Second, the upper-level classes will provide a basis of the student's retention of the skills and the further application of the skills. In particular, these skills are required in the capstone classes. The final assessment will come from the Information Systems Coordinator's office. It is the Information Systems Coordinator's responsibility to monitor the results of the assessment efforts and ensure that the outcomes are achieved. Once this has occurred, the findings will be reported to the Dean of the School for further review.

3.7.4. Similar Programs

Since the proposed program is already an existing specialization within the Bachelor of Science in Business Administration degree program of study, the conversion to a free standing degree should not change the status of similar programs in other West Virginia institutions of higher education. The program would be unique to Fairmont State University since the intent is merely to convert an existing specialization under the Bachelor of Business Administration degree to

a free standing major. Currently, there are no Bachelor of Science degrees offered in the state in Information Systems. The closest degree to this program is offered by West Virginia University Institute of Technology and is a Bachelor of Science in Management Information Systems. The degree is similar but the courses are not an exact match. Both programs offer core business course but the WVUIT degree has more management emphasis while the FSU program has more Information Systems theory at the higher level. In addition, West Virginia State University, Marshall University, Bluefield State College, Glenville State College, West Liberty State College, and West Virginia University offer BSBA programs which offer courses in Information Systems or Management Information Systems at lower-levels or that have different emphasis (Web Design, etc.) than the Fairmont State program. Shepherd, West Virginia University, Concord University, Marshall University, West Virginia University Institute of Technology, and Fairmont State University (different degree) also offer degrees in computer science – which, although very different in focus, is a computer-intensive program and often considered to be synonymous with information systems. At first glance, it may appear that there are a large amount of IS-like degrees in the state. In fact, there are not. This program is intensive in Information Systems courses and provides opportunities for students to become involved in information systems through research and practical opportunities. In the 2007 cycle, this program will also seek ABET accreditation as an Information Systems program.

3.7.5. Impact

Information systems are essential to the operations and management of businesses today. To become effective business professionals, students must be educated in information systems and technology, and in the integration of information systems into business activities. As businesses begin to rely even more heavily on the systems that hold their business transactions, the desire to hire credentialed staff increases.

As stated above, the location of Fairmont State University, in Fairmont WV, is a prime location for a degree in Information Systems. Local businesses are in need of information systems skills. Businesses that would benefit from this degree include: The FBI Fingerprint Complex (approximately 10 miles south), the WV High Technology Consortium Foundation – both the actual facility and the 194 affiliate members (in and near Fairmont), Electronic Warfare Associates (in Fairmont), Lockheed-Martin (in and near Fairmont), the NASA IV&V Facility (in Fairmont), the Institute for Scientific Research (in Fairmont), and many others.

Information Systems is a growing field of educational study. In 2004, ABET accredited 204 Computer Science Programs but only 11 Information Systems Programs. This number is expected to grow rapidly as new Information Systems standards are implemented. The Fairmont State University Information Systems Department will apply for ABET accreditation in 2007 when specific Information Systems guidelines in effect and once the BSIS at Fairmont State University is approved.

A recent (August 2005) survey by Cisco Systems found that innovation is the most important factor in business success, according to business and technology leaders. Fifty-three percent cited it as having the biggest impact on competitiveness, while increasing employee education and skill levels was favored by 26 percent. Cutting-edge technologies are very important to business and technology leaders. Adding a degree specialization in Information Systems to Fairmont State University makes the University and the state more marketable.

3.7.6. Resources

There are currently three Information Systems faculty at Fairmont State University who will be able to service the requirement courses. In the fall of 2007, it is expected that the department will move to a new location with more physical space. All current hardware and labs will be moved at that time. No additional resources are required, other than standard maintenance and replacement of obsolete equipment over time for which a fee program is in place . There will be no changes. **This is a program that is already in place as a specialization under the Bachelor of Business Administration degree program. The intent is to convert the information systems specialization to a free standing Bachelor of Science in Information Systems degree major.** The key administration personnel for this proposal and degree program include: Tracie Dodson, Assistant Professor and Coordinator of Information Systems, and Rebecca Schaupp, Dean of Business Administration.

Appendix A

Information Systems Mission, Vision, and Goals

MISSION

The mission of the Information Systems Department is to educate students for professional practice within the fields of information systems, business administration, and related fields. The Department offers a practical curriculum with real-life experiences and undergraduate courses that promote critical thinking and creative discovery, encourage teamwork and leadership, and prepare students for lifelong learning. This is accomplished by a commitment to the highest possible standards of quality in the areas of teaching, learning, research, advising and service.

VISION

The vision is to expand the School's role as a center for quality undergraduate education programs and research in business and in information systems. This includes growth and expansion of current undergraduate programs and practices and also expansion into the area of quality graduate education further enhancing the School's ability to meet the department goals and mission.

DEPARTMENT GOALS

The goal is to educate students who have a breadth of knowledge across the core subject matter of information systems and business and can communicate and use that knowledge constructively for the benefit of others. Objectives in furtherance of this goal include assuring in our academic programs that students obtain foundation knowledge in business, mathematics, technology, and science in order to pursue their business and science courses; gain knowledge in such a way that they can think independently and creatively; communicate their knowledge effectively to others, improve the efficiency and effectiveness of their company or any institution in which they become involved, and operate in society in a constructive, ethical and professional manner. The specific areas of focus for the department include:

Teaching - Continue to strengthen classroom teaching by (1) encouraging professors to participate in education based professional activities and workshops, (2) recognizing outstanding teaching contributions through award nominations, and (3) encouraging professors to use midterm teaching evaluations and similar devices to gain reactions to teaching as courses progress.

Research – Increase the research focus specifically in applied research and promote a high level of research involvement by (1) encouraging faculty to continue the expansion in numbers of research proposals submitted to funding agencies, (2) recognizing outstanding research contributions through award nominations, (3) encouraging professors and students to continue to publish at a high level in peer-reviewed outlets, and (4) encouraging faculty and students to disseminate the findings from their work at conferences, seminars and in the classroom.

Areas of Specialization - Continue to extend from current strengths. Over the next five years emphasis in research is likely to expand in the areas of verification and validation of software, ROI of software engineering, as well as legal and ethical issues involved in the design of information systems.

Curriculum - Continue to maintain an undergraduate curriculum that stresses business and information system fundamentals, assures academic rigor, provides breadth and depth in upper-level courses, strengthens problem-solving ability, and focuses on design skills consistent with the needs of business and industry. Create and then continually extend and evolve graduate courses and programs to assure their responsiveness to the ever-changing societal needs for information.

Professional Service - Encourage continued participation nationally and internationally in professional organizations including promoting committee work and executive positions, research proposal review committees, professional service to nonprofit agencies (pro bono), and in article peer-review processes.

Relations with Professions and Industry - Develop active partnerships with private and government organizations through sponsored research, collaborative efforts, exchanges at professional meetings, and through student design projects.

Relations with Other Academic Units - Develop active relationships with other academic units supporting information science and system objectives.

Student Recruitment and Retention - Continue to attract top level students to the undergraduate program from throughout the state and be responsive to the diverse needs of all students in the department through care and diligence in advising and through an emphasis on one-on-one advising by faculty.

Appendix B

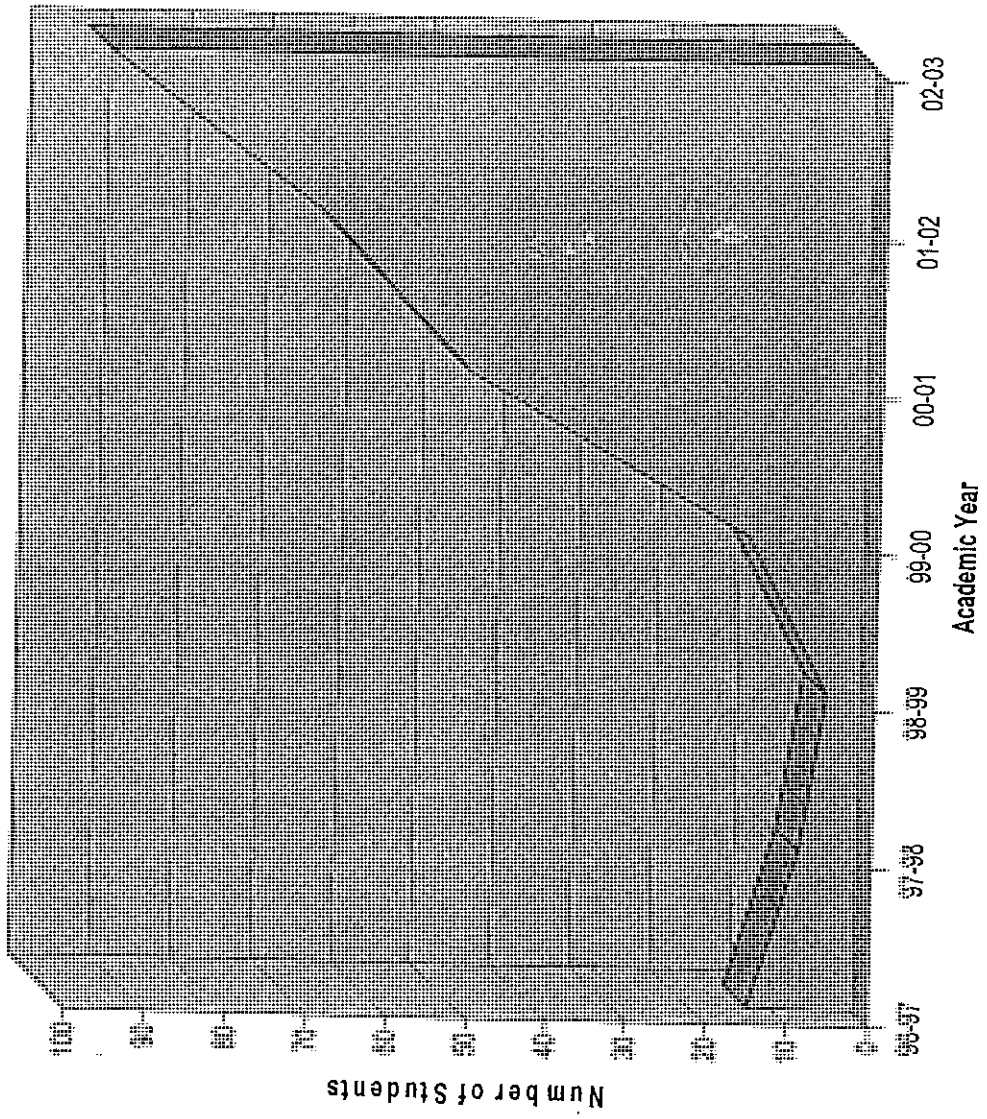
Existing Degree Program of Study and Proposed Degree Program of Study (No change)

REQUIRED MAJOR COURSES (74 hours)					
INFORMATION SYSTEMS COURSES (32 hours)					
INFO 2200 Fundamentals of Information Systems	3		INFO 3339 Programming, Data, and File Structures	4	
INFO 2205 Hardware and Operating Systems	3		INFO 3340 Advanced Application Development	4	
INFO 2235 Microcomputer Applications in Business	3		INFO 3350 Internship in Information Systems	3	
INFO 2250 Networking Fundamentals	3		INFO 4420 Database Design and Implementation	3	
INFO 3310 Systems Analysis and Design	3		INFO 4430 Special Topics in Information Systems	3	
CORE BUSINESS COURSES (36 hours)					
ECON 2201 Economic Principles and Problems I	3		MGMT 2209 Principles of Management	3	
ECON 2202 Economic Principles and Problems II	3		BUSN 2251 Corporate Communications	3	
ACCT 2201 Principles of Accounting I	3		BUSN 3306 Business Law I	3	
ACCT 2202 Principles of Accounting II	3		BUSN 3310 Business and Economics Statistics	3	
FINC 2201 Introduction to Financial Management	3		BUSN 3320 International Business	3	
MKTG 2204 Principles of Marketing	3		BUSN 4415 Strategic Management and Policy	3	
OTHER REQUIRED COURSES (6 hours)					
MATH 1112 College Algebra **OR** Higher Math	3		COMP 1102 Principles of Programming I	3	
FREE ELECTIVES TO MEET GRADUATION REQUIREMENTS (OR MINOR) (16 hours)					

INFORMATION SYSTEMS MAJOR: ADDITIONAL LIBERAL STUDIES REQUIREMENTS (38 hours) (Please refer to liberal studies requirement sheet for specified classes under each category)						
Completed		**Hours**			**Hours**	
	The First Year Experience (Math met by major requirements)	12		Society /Human Interactions (ECON 2201 satisfies 3 hours)	3	
	Scientific Discovery	8		Artistic/Creative Expression & Interdisciplinary/Advanced Studies Option	6	
	Cultural/Civilization Exploration	9				

Appendix C

IS Department Enrollment



Analyzing the IS Courses in Business Core

Tracie Dodson

April 30, 2004

Introduction and Purpose

The purpose of this paper is to develop student learning outcomes for an institution of higher education and then to identify and explain the method in which the learning outcomes will be assessed. The specific institution under review is Fairmont State College School of Business. The outcomes developed will pertain to the School of Business. The School of Business only offers one degree, the Bachelor of Science in Business Administration. Outcomes for this project will center on skills learned in classes taken in the Information Systems Department required for the Bachelor of Science. The selection of this institution, school, and department was based solely on the employment of the researcher at this institution and the fact that a goal of this study is that the findings of this study will be incorporated into the School.

The College

Fairmont State College is a medium-sized state college in West Virginia. The college has roots as a Normal School and currently has a Carnegie classification of Baccalaureate Colleges—General (McCormick, 2001). The recent addition of multiple graduate degrees and over 150 graduate students, as of spring 2004, is expected to influence a change in the current status to one of the two levels of the Master's Colleges and Universities status. There are approximately 7,000 students attending Fairmont State. This number includes students enrolled in associate, bachelor, and master programs. Fairmont State is the largest of the West Virginia State Colleges. The annual cost of attending Fairmont State College is $9,885 (2003/2004 academic year).

Fairmont State College has recently established a First Year Experience course sequence. These classes are designed to engage entering students in significant, interactive inquiry. Classes in this fifteen hour sequence were selected because they had elements that would enable students to enhance and/or develop skills in the areas of writing, analytical and critical thinking skills, and the ability to listen and speak effectively. Although most students were required to take the courses prior to the establishment of the First Year Experience, these classes are now required to be taken in the students' first 45 credit hours. This collection of classes includes:

1. English 1104 Written English I
2. English 1108 Written English II
3. Speech 1100 Intro to Speech
4. Math Any College Level (excludes Math 1101 & 1111)
5. Information Systems 1100 Computer Concepts and Applications (or demonstrated competency)

The School

The School of Business at Fairmont State had 783 students enrolled in the fall semester of 2003. Although Fairmont State only offers one degree, students specialize in majors including General Business, Accounting, Economics, Finance, Information Systems, Management, Marketing, and Office Administration. With the exception of Management, these areas also offer a minor. The School is in Candidacy Status through the year 2004 by the Association of Collegiate Business Schools and Programs accrediting body.

Students who are enrolled at Fairmont State College in the School of Business are required to take core classes in business. The classes in the core are taken by all students enrolled in the School regardless of major within the School. Among these classes are two courses in Information Systems. The Information Systems classes that are in the core are IS 2200 Fundamentals of Information Systems and IS 2235 Microcomputer Applications in Business. In addition to these two classes, students in Information Systems as a major would not only take these two classes but would take advanced study in this area. Prior to enrolling in these classes, students must have taken Information Systems 1100 which, as mentioned in the College section, is part of the First Year Experience.

Learning Outcomes Plan Components

To develop learning outcomes for the School of Business in the area of Information Systems, both the outcomes of Fairmont State College and the School of Business were reviewed to ensure that what is taught and, ultimately, the outcomes developed would tie into the institution and the school. After a review of these items, a match was found with three of the six College objectives and four of the eleven school objectives. These outcomes are identified below with the matching items italicized.

Fairmont State Graduate Outcomes

Fairmont State College has designed six attributes that all graduates should have upon graduation from Fairmont State College. These are:

1. Students should acquire an informed appreciation of the arts, the humanities, and the social and natural sciences; they should become aware

of the relationships of the academic disciplines among themselves and with broader social and ethical issues.

2. *Students should develop competence in mathematics, oral and written communication, reading, and listening.*
3. *Students should acquire problem-solving skills to aid them in making decisions about personal values and career strategies. They should demonstrate proficiency in their major fields of study so as to be competitive in the job market or gain admission to respected graduate or professional schools.*
4. *Students should have techniques for coping with the vast amounts of information available in a rapidly changing society; they should accept the necessity and pleasure of life-long learning.*
5. Students should develop sensitivity in matters of social justice, accepting and appreciating ethnic or personal differences among individuals in our society. Students should maintain an ethical view that respects the life, property, opinions, and feelings of others.
6. Students should have the knowledge and attitudes that lead to physical health and well-being.

School of Business Outcomes

The Fairmont State College School of Business has a profile of a desired graduate. This list includes characteristics that all graduates should have when they have a Bachelor of Science Degree in Business Administration from Fairmont State College.

The profile includes competencies that were developed by the faculty of the School and represent what faculty expect students to gain from the collective experience of their education in the Fairmont State College School of Business. They are:

1. Demonstrate proficiency in his/her major field of study.
2. Compete in the job market or in graduate/professional schools.
3. *Function effectively as a member of a team and understand group dynamics.*
4. Behave ethically and understand the concept of social responsibility.
5. *Communicate effectively orally and in written form.*
6. Listen to ideas and opinions of others.
7. *Solve problems and make decisions.*
8. *Think critically and analytically.*
9. Recognize and respond to opportunities.
10. Recognize and adapt to change in a proactive manner and capitalize on opportunities for life-long learning.
11. Understand and appreciate the importance of international business.

Developing Learning Outcomes

Learning Outcomes should be developed with thoughts to many faucets of the student and the institution in mind. To determine these outcomes for this paper, guidelines were used from Characteristics of Intended Learning Outcomes developed by

Mary Huba and Jann Freed (2000). These guidelines state that learning outcomes should have certain characteristics to ensure that they are effective. The statements include:

- Student-focused rather than professor focused
- Focus on the learning resulting from an instructional activity rather than on the activity itself
- Reflect the institution's mission and the values it represents
- Are in alignment at the course, academic program, and institutional levels
- Focus on important, non-trivial aspects of learning that are credible to the public
- Focus on central skills and abilities in the discipline and based are on professional standards of excellence
- Are general enough to capture important learning but clear and specific enough to be measurable
- Focus on aspects of learning that will develop and endure but that can be assessed in some form now (AAHE workshop, 2002)

The Outcomes

After reviewing the two classes in the core Business list, the following outcomes were developed:

1. Students should be able to understand the fundamental principles of Information Systems and recognize the effective use of information systems in a business environment.
2. Students should be able to analyze a business problem or situation and determine if and/or how computer applications could be used to enhance the decision-making process.
3. Students should be able to construct professional-quality, computer-generated documents to support a given business scenario. The application of the computer process should provide an effective and beneficial aid to the particular circumstances.
4. Students should be able to function effectively as a member of a team.

Discussion of Objectives

School and College Alignment

The above objectives are satisfied in the classes that are required in the School of Business core and also meet the broader needs of the College. Although the four outcomes for the Information Systems component do not fully meet the needs of the profiles, the combination of these outcomes with the outcomes from other majors will provide the skill set to allow a graduate to achieve the profile. Similarly, the addition of the liberal studies and major classes will allow School of Business graduates to achieve the skills required to achieve the profile of a Fairmont State College graduate.

Effective Characteristics

An analysis of the outcomes was completed based on the characteristics defined by Huba and Freed. The objectives developed were found to meet all the criteria for effective outcomes. The individual characteristic outcome analysis is provided by characteristic in Table 1.

Table 1 Analysis of Outcomes

Characteristic	Outcome Analysis
Student-focused rather than professor focused	All the objectives are student-centered. They all discuss what the student should be able to accomplish upon completion of the classes required.
Focus on the learning resulting from an instructional activity rather than on the activity itself	They all also allow for situational flexibility and allow the principles being learned to apply as needed to any business (or personal) situation
Reflect the institution's mission and the values it represents	The mission and the profile of the graduate evaluation does show a link with the values that are learned in the outcomes.
Are in alignment at the course, academic program, and institutional levels	All outcomes relate to the school and the college and therefore help to promote the goals of the institution and the school.
Focus on important, non-trivial aspects of learning that are credible to the public	The skills that are learned are those that are needed by the public and the business community. The alignment of these skills comes from the fact that the objectives that were developed at the school level were developed with the aid of a school advisory committee.
Focus on central skills and abilities in the discipline and based are on professional	The skills that are learned are those that are needed by the public and the business

standards of excellence	community. The alignment of these skills comes from the fact that the objectives that were developed at the school level were developed with the aid of a school advisory committee
Are general enough to capture important learning but clear and specific enough to be measurable	The situational nature of the skills provides for the adaptation of the environment and the consistency of the application of the skill.
Focus on aspects of learning that will develop and endure but that can be assessed	The outcomes are ones that involve the students' ability to apply concepts that are learned. The concepts are adaptable to multiple environments and are ones that provided a basis for future learning; but they can be measured

Motivation

Although discussion has taken place on the Fairmont State College campus concerning the possibility of offering faculty incentives for assessment participation, there are no formal rewards at Fairmont State College at this time. The motivation of the faculty comes in subtle ways. First the faculty were involved in the development of the outcomes and the profiles so there is an ownership that intrinsically motivates them to involve themselves in the process. Second, the presentation of the outcomes provides a snapshot of where the individual courses fit into the big picture. Third, it is hoped that the faculty has a desire for continuous improvement of their classes and therefore would willingly participate in something that clearly marries their courses into the goals of the

institution. Fourth, faculty will receive points on merit evaluations and potentially would receive pay raises based on their participation in these efforts to improve student learning. Finally, faculty who fail to participate at a level that is detrimental to the institution could be reprimanded.

Responsibility

The responsibility of the assessment efforts for these outcomes falls in three areas. First and foremost, the responsibility falls on the faculty who is teaching the class. The development of the instruments for direct observation of the outcomes will be the faculty's responsibility. Second, the upper-level classes will provide a basis of the student's retention of the skills and the further application of the skills. In particular, these skills are required in the capstone class. The final assessment will come from the Chair's office. It is the chair's responsibility to monitor the results of the assessment efforts and ensure that the outcomes are achieved.

Assessment Methods

Outcome One

> Students should be able to understand the fundamental principles of Information Systems and recognize the effective use of information systems in a business environment.

The first outcome is learned primarily in the IS 2200 class, Fundamentals of Information Systems. Although components of the outcome may be learned in other

classes and via other learning methods, the IS 2200 class specifically seeks to educate students in this area. There are five predominate assessment efforts to assess student learning relating to this class. There are three in-class assessments as well as two other assessment efforts that take place outside this particular class. The first-level assessments (in the class) include examinations, structured cases, and a major project (in both written and oral form) for which the topic is student-selected. The second level of assessment occurs near the end of the student's tenure at Fairmont State in the capstone class. All students enrolled in the Bachelor of Science in Business Administration are required to take a capstone class that uses cases to investigate the students' applied knowledge in all areas of the Business Administration major. This evaluation includes the outcomes students learned in the Fundamentals of Information Systems course. The final level of assessment of this learning outcome includes the surveys that are completed by students, graduates, and employers concerning their skills and abilities in the area of Information Systems.

The first two levels of assessment are classroom-based and the entire population of students will be asked to participate in the assessment process. The student motivation is two-fold. Initially, students are driven based on short-term goals including grades on exams and in that particular class. The students' additional motivation is related to their personal long-term goals including the need to know the skills that are being assessed and the fact that to achieve their goals they need the skills and a full understanding of the concepts that are covered. This complete understanding of Information Systems concepts is especially beneficial in the case-based capstone course where students are asked to analyze cases presented and identify the opportunity to apply information systems skills

and knowledge. The capstone course also requires the completion of the Major Field Test in Business by ETS. This exam measures students' academic achievement in the multidisciplinary subject matter representative of undergraduate business education including Information Systems. The third level of assessment includes identifying different populations and surveying them to determine the skills and abilities of students. The assessment will include the total population of graduates each semester, purposefully selected students currently enrolled (ensuring that they have had the course teaching the skill), and employers who are currently employing or have employed our students as graduates or interns (total population based on contact information available). The motivation for completing this level of assessment stems from the desire to improve the program. The students reward for completing the classroom assessment is the completion of the required items for class completion. They will perform to the best of their ability because their grade will be based in part on their ability to perform these tasks. The reward for the individuals completing the survey is intrinsic. They are motivated to fully complete the survey to the best of their ability because they have the opportunity to improve a program that has a connection to them personally.

Outcome Two

> Students should be able to analyze a business problem or situation and determine if and/or how computer applications could be used to enhance the decision-making process.

This outcome requires a higher level of cognitive ability than might be expected in a low-level class. There are three main points that students have to understand fully prior to being able to analyze the situation. First, a student must be able to use computer applications, second a student must understand problem-solving, and finally the student must be able to analyze the business situation and determine the best use of the computer application to the particular situation. In the lower-level IS 2200 class, students will complete these tasks in groups and the tasks will be structured in a manner that aids the students' understanding of the process as well as hinting at the solution which would be most appropriate for the situation. For example, a database situation and case would immediately follow the database section in the class. This structured case allows students to develop the critical thinking skills in information systems and helps them identify factors that are relevant in similar unstructured cases and in the working environment. There will also be times in class that the students are required to complete individual activities to assess the individual student's ability. In the capstone course, students will be given an unstructured case that they will solve throughout the semester. This case requires the analysis of information systems components and, at the senior level, students are expected to be able to analyze the case with little instructor guidance.

These assessments are both classroom-based and the entire population of students will be asked to participate in the assessment process. The student motivation is based on the students' desire to score highly on projects and exams and in that particular class. In addition, information systems skills of this level are highly valuable in the job market and the students are motivated by the need to attain employment and begin their career. The students' reward for completing the classroom assessment is the completion of required

items for class completion. They will perform to the best of their ability because their grade will be based in part on their ability to perform these tasks.

Outcome Three

> Students should be able to construct professional-quality, computer-generated documents to support a given business scenario. The application of the computer process should provide an effective and beneficial aid to the particular circumstances.

This learning outcome is addressed in two classes at Fairmont State. The first class is IS 1100 which is part of the Freshman Experience of classes and which is required of all students. The second class is the IS 2235 class. The applied class is taught in a lab environment and the students are required to complete activities every day in class that strengthen their skills in the application area. The assessment for this outcome takes place directly in these classes as well as in other classes on campus that require any form of document. The students are motivated to participate by the very real fact that they are required to use these skills on a daily basis. The job market expects that students are computer literate and fundamental uses in a business environment are in the applications taught in these two classes. The students are also motivated to score highly on projects and exams and receive a successful final grade in that particular class.

These assessments are classroom-based and the entire population of students will be asked to participate in the assessment process. To address the large quantity of students who will take the classroom assessment, testing software will be used to ensure

that the tests are reliable and valid and that they are consistent across the Fairmont State campus. Again, the student reward for completing the classroom assessment is the completion of required items for the class. They will perform to the best of their ability because their grade will be based in part on their ability to perform these tasks.

Outcome Four

Students should be able to function effectively as a member of a team.

The final outcome assessed in this report is the students' ability to function effectively as a member of a team. This outcome is vastly different from the first three discussed in this paper. To assess the students, there will be three methods. First, the students will be asked to complete a peer review of any students who have participated as member of their group. This evaluation will be graded for valid points both praise and critiques of the peer group. The students will also have to give frequent reports on their progress in their group which will lead to a discovery of the individual student's participation in the group process. Students will have to complete a paper and a presentation in both the IS 2200 and the business capstone course. These products will be evaluated and the quality of these activities will be reflected in the group's grade (and thus will be reflected in the individual's grade).

These assessments are classroom-based and the entire population of students will be asked to participate in the assessment process. The student motivation is based on the student's desire to score highly on group projects and exams and thus earn a high individual grade in that particular class. In addition, the capstone class pulls together the

major components of a degree in business administration and simulates the business environment. At this point in their student career, the students are motivated by their need to understand what they are expected to do on the job and to apply the skills that they have learned. The student reward for completing the classroom assessment is the completion of required items for class completion. They will perform to the best of their ability because their grade will be based in part on their ability to perform these tasks and because they are completing activities that are closely related to their near employment. In addition to the student's individual performance goals, the student will be motivated to perform well because they are responsible to and for the group. The peer motivation and the knowledge that their peers are assessing their contribution to the project will motivate them to perform their best. Student evaluation of peers is typically tougher than the instructor evaluation of the same student. Students do not want to perform poorly in the group.

Instruments and Evaluation

To ensure that the learning objectives are met in the classes discussed above, specific assessment measures will be taken to discern the students' progress toward meeting the objectives. As an initial attempt to identify the students' progress toward the objectives, assessment techniques for the first outcome were developed and will be implemented beginning Fall 2004. The assessment methods for the remaining outcomes will be developed throughout the remainder of 2004 and will be implemented in January 2005.

Students in IS 2200 complete a major group project. The topic of the projects is student selected. Students form groups and the group selects an area of information systems that interests them personally. This project allows students to relate theory to practice by completing a major project in an area of personal interest. The goals of the project include: developing skills in teamwork, enhancing a students' interest in information systems in general, expanding and exploring students' interests in an area they have a personal curiosity in, and exposing the entire class of students to knowledge in multiple areas (by witnessing other presentations). Students should be able to understand the fundamental principles of Information Systems and recognize the effective use of information systems in their selected subject matter. The clear goals of the project mirror the first student learning outcome. The guidelines to the project can be found in Appendix A.

To evaluate this project, a grading rubric will be used. This rubric will be used by faculty and peers to rate the group's performance. This is a comprehensive review where all students will evaluate all groups. The rubric used for this project includes the following areas for evaluation: organization and supplementary materials, subject knowledge, topic discussion and eye contact, verbal techniques, resource utilization, project explanation and content, and project style and language. The areas of organization and supplementary material, project explanation and content, and project style and language have ten potential points while the remaining areas have five points possible. To simplify the review process, a single rubric is used for the presentation and the written report. The consolidation of these two efforts allows students to view one final project point tally and to see their comprehensive effort on one easy to read form.

To ensure ease of understanding, the format of the rubric was designed to include a directive under the potential scoring areas indicating Presentation or Report. This visually indicates to the reviewer the source area for evaluation criteria they are scoring as they complete the form. The rubric can be found in Appendix B of this report. In addition to the rubric, each student will select one group and will create a written review in paragraph format including discussion of reviewed areas and justification for grading.

Added to these content and presentation-related ratings, the group will self-evaluate their internal teamwork. The students will evaluate team members in their group based on contribution, attitude, cooperation, attendance, and participation.

The results of the evaluation will be used by the faculty instructing the class and by the Information Systems Department and the School of Business. The faculty will evaluate the students and provide grades for the students based on their evaluation. In addition, faculty will use the results from the assessment to improve their teaching techniques and classroom environment. The Department will consolidate the results of the projects and faculty will collectively modify the project requirements and rubric to refine the Information Systems Program as well as the assessment process. The Department findings will be shared with the School and will be used in School decisions and will also be used to showcase the students' performance to stakeholders and potential stakeholders.

Major Field Test

As indicated earlier, all students enrolled in the Bachelor of Science in Business Administration are required to take a capstone class. All students in the capstone class

take the ETS Major Field Test in Business. This evaluation seeks to assess the outcomes students learned in the Fundamentals of Information Systems course and all Business courses through a multidisciplinary subject matter approach. To encourage the students' participation on the exam, a departmental memo was developed to motivate the students.

This memo is addressed to students enrolled in the capstone class from the Assessment Committee. The memo begins by congratulating the students on their upcoming graduation. The memo also indicates that the students have been exposed to many disciplines throughout their tenure at Fairmont State and then asks for the students' help. This approach was taken to enhance the intrinsic motivation of the student. The memo indicates that the students' results will not be directly tied to graduation and asks for the students to perform their best and represent their school to the best of their ability. The memo indicates that the exam results will be used to assess student performance relative to the School of Business mission and objectives, to provide information to facilitate development of appropriate goals, learning outcomes, and educational programs, and to enhance the accountability of Fairmont State's undergraduate business education. A copy of the memo can be found in Appendix C.

The results of the Major Field Test will be shared with the School of Business faculty by the Assessment Committee and will be used in strategic decision making. The results will be compiled over time and will be used to assess student performance relative to the School of Business mission and objectives, to provide information to facilitate development of appropriate goals, learning outcomes, and educational programs, and to enhance the accountability of Fairmont State's undergraduate business education, including the Information Systems courses and learning outcomes.

References

Huba, M. E., & Freed, J. E. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning*. Boston, MA: Allyn and Bacon.

McCormick, A. C. (Ed.). (2001). *The Carnegie classification of institutions of higher education, 2000 edition [Electronic version]*. Menlo Park, CA: The Carnegie Foundation for the Advancement of Teaching.

Appendix A

IS 2200
Major Project

Project Purpose: The Information Systems curriculum emphasizes the people, process and technology aspects of systems development. This project allows students to relate theory to practice by completing a major project in an area of personal interest.

Project Goals: The goals of the project include: developing skills in teamwork, enhancing a students' interest in information systems in general, expanding and exploring students' interests in an area they have a personal curiosity in, and exposing the entire class of students to knowledge in multiple areas (by witnessing other presentations). Students should be able to understand the fundamental principles of Information Systems and recognize the effective use of information systems in their selected subject matter.

Project Requirements: The project requires the selection of a specific area of information systems, research in the selected area, compilation of material identified as relevant to the selected topic, and dissemination of results. Project topics must be approved prior to midterm and projects are due the last week of class.

Specific Requirements: Students will deliver a written project and presentation on their selected area including:

- Written Requirements:
  - Cover Page
  - Table of Contents
  - Introduction and Relevance (1 Page)
  - Discussion (5-8 Pages)
  - Conclusion (1 Page)
  - Three Cited Outside Sources (Limit Of Two Internet Sources)
- Oral Requirements:
  - PowerPoint Presentation with Professional Slides and Effective Use of Technology Including:
  - Introduction to Team Members
  - Project Introduction
  - Project Discussion
  - Conclusions
  - Further Research Ideas and Findings
  - Handouts of Presentation for Classmates (In Handout Layout)
- Peer Review
  - Students Will Evaluate Team Members in Their Group Based on:
    - Contribution
    - Attitude
    - Cooperation
    - Attendance and Participation
  - Students Must Complete Peer Rubric Forms of All Presentations
  - One Peer Review Must be Written in Paragraph Format Including Discussion of Reviewed Areas and Justification for Grading

Appendix B

IS 2200 Project & Presentation Rubric

Attributes	Above Standard	At Standard	Attribute Still A Goal	Attribute Points Earned
	(5-4.5)	(4.5-3.5)	(3.5-0)	
Organization & Supplementary Materials	Students present information in logical, interesting sequence which audience can follow and presentation includes computer-generated visuals that enhance presentation.	Students present information in logical sequence which audience can follow and includes computer-generated visuals.	Audience has difficulty following presentation because students jump around and/or do not include visuals or supplementary materials or materials do not enhance presentation.	/5 Presentation /5 Report
Subject Knowledge	Students demonstrate full knowledge by answering all class questions with explanations and elaboration.	Students are at ease and answer most questions with explanations, but fail to elaborate.	Students do not have grasp of information; students cannot answer questions about subject.	/5 Presentation
Topic Discussion & Eye Contact	Students maintain eye contact and are informed when speaking (without reference to notes) about the material.	Students are informed when speaking about the material while referencing notes.	Students are unable to accurately discuss information related to topic or simply read information from paper.	/5 Presentation
Verbal Techniques	Students use a clear voices and correct, precise pronunciation of terms so that all audience members can hear presentation.	Students' voices are clear. Students pronounce most words correctly. Most audience members can hear presentation.	Students' voices are low. Students incorrectly pronounce terms. Audience members have difficulty hearing presentation.	/5 Presentation
Resource Utilization	Students utilize resources gathered, described in class, and in textbook to acquire info; incorporated info into presentation.	Students utilize some outside resources, some resources described in class and in textbook and incorporate information into presentation.	Students utilize few or no outside resources, resources described in class, and resources in textbook in presentation.	/5 Report
	(10-9)	(9-7)	(7-0)	
Project Explanation & Content	Research accurately reflects the industry. Results are rational and key concepts are explained completely. It is organized in a way that provides enough detail and enhances the reader's ability to understand the information, data and findings.	Research accurately reflects the industry and relates to the class. It is organized in a way that provides enough detail and allows the reader to understand the information, data and findings.	Research is incomplete, missing or does not get across the information, data, and findings.	/10 Report
Project Style and Language	Sentences are complete and grammatical and they flow together easily. Terms are used correctly and in a manner that defines IS terms without detracting from the technical aspect of the report.	For the most part, sentences are complete and grammatical and they flow together easily. Minor errors do not detract from the content. Terms are used correctly.	There are errors in sentence structure and grammatical errors are frequent and detract the reader from the project's purpose. There is an overuse of jargon without definitions.	/10 Report
			Total	/50

Comments:

Appendix B

SCHOOL OF BUSINESS

TO: STUDENTS ENROLLED IN STRATEGIC MANAGEMENT AND POLICY

FROM: SCHOOL OF BUSINESS ASSESSMENT COMMITTEE

SUBJECT: MAJOR FIELD TEST IN BUSINESS

DATE: 6/29/2007

CC: DR. REBECCA SCHAUPP

Hello and congratulations on your soon-to-be graduation. As senior-level students in the School of Business, you are very close to completing your studies here at Fairmont State. You have been exposed to classes in many areas of business and have met many obstacles to gain a body of knowledge that will aid you on your career path to success.

Because you have this knowledge, we need your help! The Assessment Committee in the School of Business has purchased the ETS Major Field test in Business to administer to students in the School of Business Capstone Class (Business 415). This test is intended to measure students' academic achievement in the multidisciplinary subject matter representative of undergraduate business education. The exam results will be used to assess student performance relative to our specific mission and objectives, to provide information to facilitate development of appropriate goals, learning outcomes, and educational programs, and to enhance the accountability of Fairmont State's undergraduate business education.

So, what does that mean to you? **We want to make Fairmont State's School of Business better and we need you to complete the exam with care and careful consideration of your responses to ensure that we are able to meet that goal.** As you will see on the exam, questions relate to the areas of Accounting, Economics, Management, Quantitative Business Analysis and Information Systems, Finance, Marketing, Legal and Social Environment, and International Issues. Each subject area is between ten and sixteen percent of the exam and assumes a principles knowledge of the material. There may be some questions you do not recall from your principles courses or there may be ones that you are unsure of the best way to answer the question, please use your problem-solving skills and answer them to the best of your ability.

It cannot be stressed enough that you should take your time and consider the questions on the exam. Although your performance on this test is not directly tied to your graduation, your scores represent Fairmont State's performance and skills in the Business area as determined nationally. Your instructor in this capstone class can answer basic administration questions for you today; however, if you have any questions concerning the exam beyond today's activities or questions about assessment efforts at Fairmont State in general, please bring your concerns to 111 Jaynes Hall and you will be directed to the person best suited to respond to your questions.

We sincerely thank you for your time and care in completing this exam and hope that you will take an active role in shaping the future of your School and soon to be alma mater!

II. Students

Intent: Students can complete the program in a reasonable amount of time. Students have ample opportunity to interact with their instructors and are offered timely guidance and advice about the program's requirements and their career alternatives. Students who graduate the program meet all program requirements.

Standard II-1. Courses must be offered with sufficient frequency for students to complete the program in a timely manner.

A. Frequency of Course Offerings

1. List below the course numbers, titles, and credit hours of courses required for the major that are offered less frequently than once per year.

All classes are offered at least once per year.

Dept Course #	Title of course	Semester hrs
	None	

2. Explain how it is determined when they will be offered, e.g., rotation, odd-numbered years, or whatever.

Courses are offered on a rotation schedule determined at the department level. The schedule is the minimum number of times a course will be offered each academic year. The IS Program is transitioning into offering each course every semester as the program grows. It is anticipated that within the next one to two years all classes will be offered at least once each semester. The current IS rotation is:

2200	Fundamentals of Information Systems	Spring 2 Classes / Fall 2 Class
2205	Information Technology - Hardware and Operating Systems	Spring 1 Class / Fall 1 Class
2235	Microcomputer Applications in Business	Spring 2 Classes / Fall 2 Classes
2250	Networking Fundamentals	Spring 1 Class / Fall 2 Classes
3339	Programming File and Data Structures	Spring 1 Class / Fall 1 Class
3340	Advanced Application Development	Spring 1 Class / Fall 1 Class
3310	System Analysis and Design	Spring Only
3350	Internship in Information Systems	On Demand Every Semester
4420	Database Design and Implementation	Spring Only
4430	Special Topics in Information Systems	Fall Only / Spring On Demand

3. List below the course numbers, titles, and credit hours of courses allowed for the major but not required (i.e., either free electives or lists of courses from which students must choose a certain number), that are offered less frequently than once per year.

All listed classes are offered at least once per year.

Dept Course #	Title of course	Semester hrs
	None	

4. Explain how it is determined when they will be offered, e.g., rotation, odd-numbered years, or whatever.

Courses are offered on a rotation schedule.

Business	2251	Business Communication	3 Sections Fall/Spring
Business	3310	Business and Economics Statistics	3 Fall/Spring
Economics	2201	Economic Principles and Problems	Fall Several Sections (1 Night/Spring (1 Night) Class
Economics	2202	Economic Principles and Problems	Spring Several Sections (1 Night)/Fall (1 Night) Class
Finance	2201	Introduction to Financial Management	3 sections (1 night/online) Fall/Spring
Business	3306	Business Law I	3 sections (1 night/online) Fall/Spring
Management	2209	Principles of Management	2 Fall/Spring
Marketing	2204	Principles of Marketing	2 Fall/Spring
Business	4415	Strategic Management and Policy	2 Fall/Spring 2
Math	1112	College Algebra	Several Sections Fall/Spring
CS	1102	Principles of Programming I	Several Sections Fall/Spring

Standard II-2. Information systems programs must be structured to ensure effective interaction between faculty and students.

B. Interaction with Faculty

1. Describe how you achieve effective interaction between students and faculty or teaching assistants in lower-division courses, particularly in large sections.

Students and faculty interact on a regular basis through classes, office meetings, and ISSO-ACM student organization meetings, tours, dinners, and other events. The class size is generally 20-25 students with some courses having as few as 10 students and some having as many as 30. Class caps are set at 25 for most lower-level courses and 20 for the upper-division courses.

2. Describe how you achieve effective interaction between students and faculty in upper- division courses. Give detailed explanation and/or documentation how you do this for sections with more than thirty students, if applicable.

Students are encouraged to communicate with faculty during class, in their office, at student organization meetings, and department events. In addition, all students are able to communicate with faculty via email and class IM and chat. If office hours are not convenient for student meetings, faculty calendars are available online for students to request a meeting. No classes are larger than 30 students.

Standard II-3. Advising on program completion, course selection and career opportunities must be available to all students.

C. Student Guidance

Describe what determines the requirements that a student will follow and how the student is informed of these requirements.

Students are given model schedules as well as catalogs when they attend orientation. After they are assigned to an IS advisor, students meet with their advisor at least once a semester to review their projected course schedule and remaining classes. Faculty advisors and students generally complete a plan of study indicating when students will enroll in specific course - especially when the students are in their junior and senior years. When a student is two semesters away from graduation, they apply for graduation and have a degree audit with the registrar's office. This audit indicates the official remaining coursework the student is required to complete. This is a check/balance to ensure that the student and advisor did not miss anything. In addition, beginning with the 2007/2008 academic year, students will be able to complete an online audit of courses remaining for their major.

D. Student Advisement

Describe your system of advisement for students on how to complete the program. Indicate how you ensure that such advisement is available to all students.

Students who are IS majors are assigned an advisor based on the first initial of their last name. To ensure that the advisor is versed in courses and requirements, all IS advisors are full-time IS faculty. Students are sent regular updates on classes and advising information by the coordinator and their advisor. Each semester students are required to meet with their advisor to create their schedule for the upcoming semester and ensure that they are on the right path for graduation. These are formal appointments made via the online calendaring system (Outlook Web Access) or through a written appointment calendar available in the advisor's office. Students are also encouraged to meet with their advisor at other times if they have any questions or concerns. In addition, a first-time advising sheet is being created to ensure that the student understands the requirements and has met all test scores, freshman experience requirements, and other important items.

Information Systems

Bachelor of Science in Information Systems
Degree Requirements
Program Effective Fall 2003 – Catalog Year 2006-2007

FAIRMONT STATE

Name **[Click here and type Name]**
Minor: **[Click here and type Minor]** (OPTIONAL)
Start Date: **[Click here and type Start Date]**
Anticipated Graduation Date **[Click here and type Date]**
Advisor Dodson
Date Reviewed: **[Click here and type Date Reviewed]**

REQUIRED MAJOR COURSES (64 hours)			
INFORMATION SYSTEMS COURSES (32 hours)			
INFO 2200 Fundamentals of Information Systems	3	INFO 3339 Programming, Data, and File Structures	4
INFO 2205 Hardware and Operating Systems	3	INFO 3340 Advanced Application Development	4
INFO 2235 Microcomputer Applications in Business	3	INFO 3350 Internship in Information Systems	3
INFO 2250 Networking Fundamentals	3	INFO 4420 Database Design and Implementation	3
INFO 3340 Systems Analysis and Design	3	INFO 4430 Special Topics in Information Systems	3
CORE BUSINESS COURSES (24 hours)			
ECON 2201 Economic Principles and Problems I	3	MGMT 2200 Principles of Management	3
ECON 2202 Economic Principles and Problems II	3	BUSN 3251 Corporate Communications	3
ACCT 2201 Principles of Accounting I	3	BUSN 3305 Business Law I	3
ACCT 2202 Principles of Accounting II	3	BUSN 3310 Business and Economics Statistics	3
FINC 2201 Introduction to Financial Management	3	BUSN 3330 International Business	3
MKTG 2204 Principles of Marketing	3	BUSN 4415 Strategic Management and Policy	3
OTHER REQUIRED COURSES (6 hours)			
MATH 1112 College Algebra OR Higher Math	3	COMP 1162 Principles of Programming I	3
FREE ELECTIVES TO MEET GRADUATION REQUIREMENTS (OR MINOR) (16 hours)			

INFORMATION SYSTEMS MAJOR: ADDITIONAL LIBERAL STUDIES REQUIREMENTS (Required LS Choices: Econ 2201 and Math 1112) (Please refer to liberal studies requirement sheet for specified classes under each category)			
	Hours	☑	Hours ☑
The First Year Experience (Math met by major requirements)	12	Society/Human Interactions (ECON 2201 satisfies 3 hours)	3
Scientific Discovery	8	Artistic/Creative Expression & Interdisciplinary/Advanced Studies Option	6
Cultural/Civilization Exploration	9		

Liberal Studies

Bachelors Degree Requirements
Catalog Year 2006-2007
44 hours (BS) 53 hours (BA)

FAIRMONT STATE

	HRS	☑		HRS	☑
THE FIRST YEAR EXPERIENCE (12 - 13 hours) (To be completed within the first 45 credit hours)					
ENGL 1104 Written English I #	3		MATH 1112 or higher	3 - 4	
ENGL 1108 Written English II #	3				
SPCH 1100 Intro. to Speech Communication	3		INFO 1100 Computer Concepts & Applications (or demonstrated competency)	3	
SCIENTIFIC DISCOVERY (8 hours) (Choose any 2 courses from the following options, courses do not have to be sequential)					
	HRS	☑		HRS	☑
BIOL 1105 Biological Principles I #	4		PHYS 1101 Intro. to Physics #	4	
BIOL 1106 Biological Principles II #	4		PHYS 1102 Intro. to Physics #	4	
CHEM 1101 General Chemistry #	4		PHYS 1105 Principles of Physics #	5	
CHEM 1102 General Chemistry #	4		PHYS 1106 Principles of Physics #	5	
CHEM 1105 Chemical Principles #	5		SCIE 1103 Science that Matters	4	
CHEM 1106 Chemical Principles #	4		SCIE 1110 Chemistry of Life #	4	
GEOL 1101 Physical Geology	4		SCIE	4	
GEOL 1102 Historical Geology #	4		SCIE	4	
GEOL 1103 Intro. to Environmental Geology #	4				
CULTURAL/CIVILIZATION EXPLORATION (9 hours) (Select the starred course from Option I, II, or III, one additional course from that option, and a third course from Additional Courses)					
OPTION I *ENGL 1104 is PR for Lit. courses*	HRS	☑	**Additional Courses for all Options**	HRS	☑
★ENGL 2220 World Literature I #	3		PHIL 2200 Intro. to Philosophy	3	
ENGL 2221 World Literature II #	3		PHIL 2250 Great Philosophers	3	
ENGL 3362 World Novel #	3		PHIL 3325 Ethics	3	
ENGL 3368 Women's Literature #	3		PHIL 3330 Comparative Religions	3	
ENGL 3369 Minority Literature #	3		PHIL 4475 Philosophy of History	3	
ENGL 3390 Modern Drama #	3		MUSI 3313 Music in Western Civ. to 1750	3	
ENGL 3391 Short Story #	3		MUSI 3314 Music in Western Civ. since 1750	3	
ENGL 3392 Contemporary Poetry #	3		FREN 2201 Intermediate French I #	3	
OPTION II		☑	FREN 2202 Intermediate French II #	3	
★ENGL 2221 World Literature II #	3		FREN 3301 17th Century Literature #	3	
ENGL 2220 World Literature I #	3		FREN 3310 Special Topics #	3	
ENGL 3370 Medieval Literature #	3		FREN 3311 French Comp. & Conversation I #	3	
ENGL 3374 Shakespeare #	3		FREN 3312 French Comp. & Conversation II #	3	
ENGL 3385 Arthurian Literature #	3		FREN 3314 French Civilization & Culture #	3	
ENGL 3386 Bible as Literature #	3		FREN 3321 French Contemporary Literature #	3	
ENGL 3387 Folk Literature #	3		FREN 3330 French Literature in Translation #	3	
ENGL 3395 Mythology #	3		FREN 4411 Adv. French Comp. & Conv. #	3	
OPTION III		☑	FREN 4420 Main Currents of French Lit. #	3	
★ENGL 2230 Intro. to Literature I #	3		SPAN 2201 Intermediate Spanish I #	3	
ENGL 2231 Intro. to Literature II #	3		SPAN 2202 Intermediate Spanish II #	3	
Additional Courses for Options I & II		☑	SPAN 3301 Spanish Comp. & Convers. I #	3	
(Prerequisites may apply)			SPAN 3302 Spanish Comp. & Convers. II #	3	
HIST 1107 US History I	3		SPAN 3310 Spanish Civilization & Culture #	3	
HIST 1108 US History II	3		SPAN 3320 Latin American Civ. & Culture #	3	
HIST 2211 World Civilization I	3		SPAN 4400 Survey of Latin American Lit. #	3	
HIST 2212 World Civilization II #	3		SPAN 4401 Survey of Peninsular Literature #	3	
HIST 2213 World Civilization III #	3		SPAN 4418 US Hispanic/Chicano Literature #	3	

INFORMATION SYSTEMS B.S. Degree Requirements - *Program Effective Fall 2003* Catalog Year 2006-2007

ARTISTIC / CREATIVE EXPRESSION & INTERDISCIPLINARY / ADVANCED STUDIES OPTION (6 hours)

Select one of the following courses

	HRS	☑		HRS	☑
THEA 1120 Theatre Appreciation	3		ART 1120 Art Appreciation	3	
MUSI 1120 Music Appreciation	3		INTR 1120 Experiencing the Arts	3	

Select three hours from the following courses

	HRS	☑		HRS	☑
APPD 1110 Hist. of Contemporary Fashion	3		GRAP 2225 Basic Photography	3	
ARCH 1130 Architectural History I	3		GRAP 2290 Elec. Art & Computer Imaging #	3	
ARCH 1160 Architectural History II #	3		GRAP 4400 Comp. Anim. & Multi-Media #	3	
ART 2275 Art from Prehistoric to 1450	3		MUSI Any combination of 1 hour Music courses	1-3	
ART 3377 Art from 1450 to 1750	3		MUSI 1105 Functional Piano I-IV #	1	
ART 3378 Art from 1750 to 1950	3		MUSI 1139 Voice Class	1	
ART 3380 Contemporary Issues in Art	3		MUSI 1167 Collegiate Singers	1	
ENGL 3384 Art of the Motion Picture #	3		MUSI 1168 Marching Band	1	
FREN 3315 French Film	3		MUSI 1169 Concert Band	1	
MUSI 3313 Music in Western Civilization I	3		MUSI 1172 Orchestra #	1	
MUSI 3314 Music in Western Civilization II	3		MUSI 2247 Stage Band #	1	
THEA 3392 Costume History and Design #	3		MUSI 2277 Chamber Choir #	1	
APPD 1102 Apparel Design	3		THEA 1148 Theatre Workshop I	1	
ART 1142 Drawing	3		THEA 2212 Theatrical Makeup	1	
ART 2241 Drawing from Life #	3		THEA 2220 Oral Interpretation #	3	
ART 2251 Painting #	3		THEA 2230 Acting #	3	
ART 2283 Modeling and Sculpture	3		THEA 2238 Acting Workshop I	1	
ART 3341 Graphics #	3		THEA 2244 Intro. to Theatrical Design #	3	
ART 3352 Painting the Figure #	3		THEA 3340 Theatre History I #	3	
ART 3353 Beginning Watercolor Painting #	3		THEA 3341 Theatre History II #	3	
ART 3363 Pottery	3		PHED 1100 Fitness & Wellness	2	
ENGL 3332 Narrative & Descriptive Writing #	3		FOLK 2200 Intro. of Folklore	3	
ENGL 3333 Writing Non-fiction #	3		INTR 1100 Race, Class, and Gender	3	
ENGL 3344 Writing Poetry #	3		INTR 2201 Intro. to Women's Studies	3	
ENGL 3345 Writing Fiction #	3		INTR 2200 Empowering Leadership #	3	
RECR 1146 Folk and Square Dance	2		INTR 2281 Great Ideas of Leaders #	3	
			INTR 4402 Seminar in Women's Studies #	3	
OR any course in a discipline beyond the 1100 level that is not required within the student's major or minor field of study.				3	

SOCIETY/HUMAN INTERACTIONS (6 hours)

(Select 2 courses from 2 different disciplines)

	HRS	☑		HRS	☑
PSYC 1101 Intro. to Psychology I	3		POLI 1103 American Government	3	
SOCI 1110 Intro. to Sociology	3		POLI 2200 Intro. to Political Science	3	
SOCI 1111 Intro. to Anthropology	3		POLI 2201 Prin. of International Relations	3	
ECON 2200 Economics	3		POLI 2203 Comparative Government	3	
ECON 2201 Economics Prin. I (Business Majors)	3*		POLI 4405 Terrorism	3	
GEOG 2210 Intro. to Geography	3				

APPROVED WRITING INTENSIVE COURSE

(May not use ENGL 1104, 1109, 2220, 2230, 2235, or 2231)

#	HRS	☑		HRS	☑

B.A. DEGREE OPTION (12 hours) – NOT For BSIS Students

(Complete all B.S. Requirements with additional foreign language hours)

	HRS	☑		HRS	☑
FREN 1101 Elementary French I	3		SPAN 1101 Elementary Spanish I	3	
FREN 1102 Elementary French II #	3		SPAN 1102 Elementary Spanish II #	3	
FREN 2201 Intermediate French I #	3		SPAN 2201 Intermediate Spanish I #	3	
FREN 2202 Intermediate French II #	3		SPAN 2202 Intermediate Spanish II #	3	

PLEASE NOTE:

- Certain majors require specific Liberal Studies courses. Check with an advisor before registering for courses. *Econ 2201 is required in the Core Business Classes.
- # designates courses with pre-requisites. Please refer to the college catalog for PR information.
- The above Liberal Studies Requirements do not apply to Elementary Education majors. Please refer to the catalog or check with an advisor for more specific information.

INFORMATION SYSTEMS B.S. Degree Requirements - Program Effective Fall 2003 Catalog Year 2006-2007

E. Access to Qualified Advising

When students need to make course decisions and career choices, what is their procedure for obtaining advising? Do they have adequate access to qualified professionals when necessary?

As stated above, all IS students are advised by full-time IS faculty. Students are very satisfied with the advising in our department and have indicated exceptionally high responses on advising evaluations created by the coordinator. Individual (anonymous) evaluations are reviewed at the end of each advising session and improvements are made to the advising process. In the past, the lowest rating has stemmed from the statement concerning the advisor helping the student to use the FSU catalog. Because the IS coordinator has developed forms specific to IS advising, this step is often overlooked. The advisors are making an effort to increase their explanation of the FS catalog in future advising sessions.

School of Business Undergraduate Academic Advising Evaluation

We would like to improve our advising at Fairmont State University. We would like some feedback from you, the student, about the service you receive from your adviser. Please help us by completing this form. Thank you!

Directions: Please fill in the response you feel is appropriate.

	My _____ (Degree or Major) adviser, Tracie Dodson...	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	N/A
1.	creates an atmosphere in which I feel comfortable	C	C	C	C	C	C
2.	treats me as an individual with unique needs	C	C	C	C	C	C
3.	demonstrates to me that advising is important to him/her	C	C	C	C	C	C
4.	is helpful in teaching me about Liberal Studies Requirements	C	C	C	C	C	C
5.	understands pre-requisites and course entrance requirements (placement tests, etc.)	C	C	C	C	C	C
6.	is knowledgeable about classes in my major	C	C	C	C	C	C
7.	is knowledgeable about classes in the core business requirements	C	C	C	C	C	C
8.	is helpful when scheduling classes	C	C	C	C	C	C
9.	has helped me plan my future class schedule (academic map or plan)	C	C	C	C	C	C
10.	is interested in my academic progress	C	C	C	C	C	C
11.	is helpful in assisting me if a problem arises	C	C	C	C	C	C
12.	teaches me to use the FS Catalog	C	C	C	C	C	C
13.	suggests other campus resources that are relevant or of interest to me (documents, offices, web sites, etc.)	C	C	C	C	C	C
14.	responds to my phone calls and/or e-mails in a timely manner	C	C	C	C	C	C
15.	is available to meet with me when I need them	C	C	C	C	C	C
16.	has helped me with my career interests	C	C	C	C	C	C
17.	talks with me about long-range goals	C	C	C	C	C	C
18.	listens to me and responds appropriately to my requests	C	C	C	C	C	C
19.	has made my college experience easier	C	C	C	C	C	C
20.	played an important part in my Freshman year and college transition	C	C	C	C	C	C
21.	played an important part in my senior year and my ability to graduate on schedule	C	C	C	C	C	C
22.	encourages me to do my best	C	C	C	C	C	C
23.	acts in a professional manner	C	C	C	C	C	C
24.	is someone I would recommend to other students	C	C	C	C	C	C
25.	is an excellent advisor	C	C	C	C	C	C

What has your academic adviser done that you found particularly helpful? Please be specific.

What could your adviser have done to be more helpful? Please be specific.

Number of times I have seen my adviser this year: 1-2 times 3-5 times 6 or more times

Reasons for visiting with advisor this year: discuss changing my major degree questions obtain reference schedule classes career advice graduation audit personal crisis other: _____(please indicate)

What other comments do you have about advising at Fairmont State in the School of Business?

References

Komives, S. R., & Woodard, D. B. (2003). Student services: A handbook for the profession. San Francisco: Jossey-Bass.
Lynch, P. C. (2005). The Mentor: An Academic Advising Journal. "Student Evaluations of My Performance"

Created 10/06 T. Dodson

Standard II-4. There must be established standards and procedures to ensure that graduates meet the requirements of the program.

F. Meeting the Requirements

Describe your standards and procedures for ensuring that graduates meet the requirements of the program.

As indicated above, all students are to meet at least twice with their advisors each academic year to review their courses and plan their remaining study. Students also complete graduation audits at the beginning of their final academic year. This ensures that they have had all the course requirements of the program. In addition, the new electronic audit will be available to students to ensure that they are aware of the courses that remain in their required course list.

III. Faculty

Intent: Faculty members are current and active in the discipline and have the necessary technical breadth and depth to support a modern information systems program.

If different programs have different faculty members, please identify which faculty members are associated with which program(s), and the percentage of time allotted, if they are associated with more than one.

Standard III-1. The interests, qualifications, and scholarly contributions of the faculty members must be sufficient to teach the courses, plan and modify the courses and curriculum, and to remain abreast of current developments in information systems.

Standard III-2. All faculty members must have a level of competence that would normally be obtained through graduate work in information systems.

Standard III-3. A majority of the faculty members should hold doctoral degrees. Some full-time faculty members must have a Ph.D. in information systems or a closely related area.

Standard III-4. Faculty members must remain current in the discipline.

A. Interests, Qualifications, and Scholarly Contributions

The *Criteria* state that the interests, qualifications, and scholarly contributions of the faculty must be sufficient to teach the courses, plan and modify the courses and curriculum, and that all faculty members must remain abreast of current developments in information systems. This information should be contained in the faculty vitas attached to this report and need not be repeated here. (A sample vita questionnaire is attached in section B below. Although it is not necessary to follow this format, it is important that whatever format is followed contain all the information asked for. And, to make things easier for the visiting team, please see that all faculty vitas are in the same format, whichever format is used.)

This is an appropriate place to present any additional evidence relative to the standards that may not be evident from the individual vitas.

B. Information Regarding Faculty Members

On separate pages, please furnish the following information for all faculty members that teach courses allowed for the major, including those who have administrative positions in the department (chair, associate chair, etc.). Use the form given below as guidance. This form need not be followed exactly, but all requested information should be supplied. Please use a common format for all vitas. Please limit information to no more than three pages per person, if at all possible. Please place the form(s) for administrator(s) first, followed by the others in alphabetical order.

Vitas are available by clicking the links below or at the end of this section.

Tracie Dodson

Rebecca Giorcelli

Roger Wilson

1. Name, current academic rank, and tenure status

2. Date of original appointment to this faculty, followed by dates and ranks of advancement

3. Degrees with fields, institutions, and dates

Degree	Field	Institution	Date

4. If you do not have a formal degree in information systems, describe any course work you may have taken, or other ways in which you have achieved competence in information systems; there is no necessity to repeat information here which is contained in later sections of this document.

5. Conferences, workshops, and professional development programs in which you have participated in the last 5 years to improve teaching and/or professional competence in information systems.

6. Other related computing experience including teaching, industrial, governmental, etc. (Where, when, description and scope of duties.

7. Consulting—list agencies and dates, and briefly describe each project

8. Principal publications during the last five years. Give in standard bibliographic format.

9. Other scholarly activity during the last five years: grants, sabbaticals, software development, etc.

10. Courses taught this and last academic year, term-by-term. (This year is the academic year in which this Self-Study report was prepared; last year was the year prior to this.) If you were on sabbatical leave, please enter the information for the previous year. Please list each section of the same course separately.

Year/term	Course number	Course title	Sem hrs	No. of students

11 Other assigned duties performed during the academic year, with average hours per week. Indicate which, if any, carry extra compensation. If you are course coordinator for courses taught by other than full-time faculty, please indicate here which courses.

12 Number of students for which you serve as academic advisor: ___

13. Estimate the percentage of your time devoted to scholarly and/or research activities: _____%
Please give a brief description of your major research and scholarly activities.

14. If you are not a full-time faculty member, state what percentage of full-time you work: _____%
Percentage of this time allocated to the information systems program being evaluated: _____.

Tracie M. Dodson

tdodson@fairmontstate.edu

710 Cherry Ridge Rd, Weston, WV 26452
1201 Locust Ave.CH 132, Fairmont, WV 26554

304.269.5882 home
304.367-4191 office

Education Profile:

Degrees Earned:

Doctor of Education in Education Leadership, West Virginia University, ABD (Expected December 2007)
Major: Education Leadership Minor: Business Administration Dissertation Topic: Assessment
Master of Science in Industrial and Labor Relations, West Virginia University, 1996
Bachelor of Science in Industrial Engineering , Wheeling Jesuit College, 1995

Other Study and Professional Improvement:

Cisco Career Certification for Cisco Certified Network Associate (National Certification Achieved by independent testing facility exam), 2000-2002
Networking Fundamentals, 70 hours
Router Theory and Router Technologies, 70 hours
Advanced Routing and Switching, 70 hours
Project-Based Learning, 70 hours
Cisco Instructor Training for Cisco Certified Academy Instructor, 2000-2002
Networking Fundamentals, 20 hours
Router Theory and Router Technologies, 20 hours
Advanced Routing and Switching, 20hours
Project-Based Learning, 20 hours
WebCT Training, 2000
One week training session at WVNET in Morgantown
Aries A+ Instructor Training, 2000
One week training session at WVU Institute of Technology in Montgomery, WV
Grant Workshops FSU 2000, Washington, DC 2006
Campus Pipeline Web Platform Trainer Certification Training, 2002

Employment Profile:

Fairmont State College, August 1998 to Present

Assistant Professor and Coordinator of Information Systems Department
Instruct Information Systems Classes
Advise Information Systems Students

Prentice Hall Faculty Advocate, May 2006 to Present

Provide training to Colleges and Universities on Office 2007 and myitlab

Fairmont General Hospital, May 1996 to September 1997

Human Resources Information Systems Coordinator
Implemented new Human Resource Information System
Established Queries and Reports
Analyzed Systems
Developed Systems
Trained Users

Fairmont State College, January 1996 to August 1998

Instructor of Computer Science and Information Systems
Trainer for Fairmont State College Staff, Fairmont State College Public Outreach, and Workforce Training and Economic Development, January 1996 to Present

West Virginia University, May 1995 to August 1996

Assistant to Coordinator of Industrial Relations

Other Professional Service:

St. Patrick Elementary School, August 2002 to 2006

Volunteer Network Specialist
Member of Technology Committee
Member School Excellence Committee
Maintain Technology Plan Information
Install Networking Equipment
Troubleshoot and Repair as Needed
Authored Community Service Learning Grant Awarded for Networking – Students and one other Fairmont State College faculty aided installation of network in school *(Some great photos are available)*

St. Matthew United Methodist Church, August 2003 to Present

Web Master
Staff Parish Relations Committee, Chair 2004 – 2006

NASA IV & V, November 2002 to Present

Working to increase the Research Opportunities for Fairmont State at NASA with NASA personnel
Placed student interns at NASA and supervised student research 2002
Received NASA grant for $10,000 2005 – Requirements Planning

Professional Performance:

Courses Taught

CS 1100	Intro to EDP (Pre-IS 1100)	IS 2253	Project Based Learning
CS 1101	Applied Technical Programming	IS 3310	System Analysis and Design
IS 1100	Computer Concepts and Applications	IS 3350	Internship in Information Systems
IS 2200	Fundamentals of Information Systems	IS 3339	Programming File and Data Structures
IS 2205	IT Hardware and Software	IS 3340	Advanced Application Development
IS 2210	Applied Business Programming	IS 3373	MIS/HRIS
IS 2220	Spreadsheet Design	IS 4430	Special Topics in IS
IS 2235	Microcomputer Apps in Business	MGMT 3372	HR Selection and Evaluation
IS 2250	Networking Fundamentals	MGMT 3390	Organizational Behavior
IS 2251	Router Theory & Technologies	BUS 1102	Introduction to Business
IS 2252	Advanced Routing and Switching	MBA 5200	Management Information Systems

Other Assignments:

Developed the critical skills for IS 1100. These skills are now used to allow students to see what they have to demonstrate to show proficiency in the IS 1100 test out as well as to show students what skills they will obtain from taking the IS 1100 class.
Developed the IS 1100 test out and self-paced section and continue to coordinate with the adjunct who administers both. This involves maintaining the software for the exams as well.
Conduct an annual training for IS 1100 and IS 2235 instructors on course content and the testing software.
Maintain textbook selections for IS courses that are taught by multiple faculty members and chair the committee to select textbooks if necessary (currently selecting IS 1100 for Fall 2007).
Create the department schedule each semester.
Maintain the course rotation for Information Systems
Locate and place interns, as part of IS 3350.
Serve as the WebCT mentor for the School of Business.
Initiated and facilitated creation of department student learning objectives, mission, vision, and goals.
Created advising material for IS and Management.
Created other policies that are in use at Fairmont State University
Initiated and facilitated the development of common components for all Core Business courses.
Curriculum development including:
Creation of IS Minor,
Hour Requirement Adjustment for IS 250 and creation of IS 253,
Creation of AAS in Applied Technical Studies in IS,
Adjustment of OAD 242,

Revision of AAS IS,
Revision of BSBA in Management
Creation of BSIS (including presenting to WV HEPC)

Created Strategic Planning Reporting Structure and supervised student completing data entry and web page creation of reports and data collection

Accreditation Team Member for NCA-HLC, IACBE, ACBSP.

Advising:

Created and advise the ISSO-ACM student organization.
Advise students in IS and Management (average of over 50 students)

Committees:

School of Business

Assessment Committee (Co-Chair 2000 – Present)
Develop material for retreat
Major Field Test Administration
Strategic Planning (2000 – Present)
Student Development (2000 – Present)
Advisory Committee (2001 – Present)
Search Committees (IS (3 times) and Management (1 time))

Fairmont State University

Faculty Development (2001 – 2003)
Campus Pipeline Action Team (2001 – Present)
Academic Computing (2002 – Present)
Assessment (2003 – Present)
CAAP Module Critical Thinking Evaluation Committee Chair
Faculty Welfare (2004, 2006 – Present)
Library Committee (2006 – Present)
Forms Management Workgroup (2006 – Present)
Search Committees (CS Faculty, IT Technician, and Teaching and Learning Center)

Grants

NSF: WV ExcITe Created Online AAS in IS (1999 – 2003)
NASA IV&V: Requirements Planning, (2005 to 2006)
WV-PA Campus Compact: Networking, (2004)
Department of Labor: Workforce Education, (2003 to 2005)
NSF: ExPEDITE Course Alignments with CTC and HS (2004 – 2007)

Research, Presentations, and Publications:

Faculty Evaluation, The Painless but Productive Method, Presentation at ACBSP Annual Conference with Raoul Arreola and Rebecca Schaupp, June 18, 2006, Chicago, IL

Faculty Evaluation, Workshop Presentation at 6th International Conference on Knowledge, Culture, & Change in Organizations, with Rebecca Schaupp, July 12, 2006, Prato, Italy

Faculty Evaluation, The International Journal of Knowledge, Culture, & Change Management, Vol. 6, 2006

Case Study in Raoul Arreola's Developing a Comprehensive Faculty Evaluation System 3/e, 2007

Web-Based Faculty Evaluation, Invited Presentation at Center for Educational Development and Assessment Conference, Tucson, AZ, March 14, 2006

Increasing Productivity Through Faculty Evaluation, Presentation at Higher Learning Commission North Central Association's 112th Annual Meeting, April 20-24, 2007, Chicago, IL

Increasing Productivity Through Faculty Evaluation, A Collection of Papers on Self-Study and Institutional Improvement, Vol. 1, 2007.

Getting Started with Faculty Evaluation, Presentation at ICABE Annual Meeting, April 11-13, 2007, Kansas City, MO

Reviewed, Learning Through a Student Conference, for The International Journal of Knowledge, Culture, & Change Management, 2006

Reviewed, Instigating and Implementing Change in Medical Education, for The International Journal of Knowledge, Culture, & Change Management, 2006

Developing Academic Partnerships, Invited Presentation at the WV Nontraditional Education Conference, Flatwoods, WV, March 29, 2007

REBECCA J. (MARTIN) GIORCELLI

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Fairmont, WV 26554
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Home: 8 New England Circle
Fairmont, WV 26554
tag1n2@adelphia.net
(304) 366-0039

PROFESSIONAL EXPERIENCE

ASSISTANT PROFESSOR **08/05 - present**

Fairmont State University, School of Business, Information Systems Department

Teaching:

Graduate Instructor:

- Project Management – MBA course

Undergraduate Instructor:

- Microcomputer Applications in Business
- Visual Basic .NET Programming
- Advanced Application Development (using ADO.NET and ASP.NET)
- Student Project Applications in Concept Engineering (Multidisciplinary course)

Research:

- Principal Investigator, A Web-based Collaborative Virtual Environment for NASA IV&V (NASA West Virginia Space Grant Consortium – Research Initiation Grant, May 2007 – May 2008)
- Co-Principal Investigator, Expanding Pathways for Educational Development and Information Technology Experiences (ExPEDITE) Project (*subcontract to ISR, Inc. – Spring 2006 – Summer 2007*)
- Project Director, Learning Formative Assessment Systems & Technologies II Program (Learning FAST II - WVHEPC Title II grant, June 2007 – May 2008)
- Project Director, Learning Formative Assessment Systems & Technologies Program (Learning FAST - WVHEPC Title II grant, June 2006 – May 2007)
- Co-Principal Investigator, Requirements ROI NASA IV&V Project, subcontract to NASA IV&V, 2005 Fall – 2006 Spring semesters)
- Principal Investigator, Team Dynamics in the Information Technology Industry - Center for Technical Leadership (CTL) Project (*subcontract to CESD, Inc.-2005 Fall semester*)

Advising:

- *Faculty Advisor:* advise approximately 50 undergraduate students
- *Delta Mu Delta Chapter Faculty Advisor*: School of Business Honorary Society

Service:

- Committee on Promotion and Tenure Evaluation (2006)
- Committee on Annual Faculty Evaluation (2005 – 2006)

OPERATIONS RESEARCH BRANCH SUPERVISOR **02/ 03 – 08/05**
SENIOR SCIENTIST **06/01 – 08/05**

Institute for Scientific Research, Inc. (ISR)

Co-Principal Investigator, "Comprehensive Information Technology Education in Rural Appalachia (CITERA) Project", (National Science Foundation, 01/05-12/07, $877,937)

Principal Investigator, "Team Dynamics in the Information Technology Industry - Center for Technical Leadership (CTL) Project", (Defense Acquisition University through subcontracts to Booz Allen Hamilton,

06/01–10/05, total funding to date $2.912M)
Validation of Neural Networks", (Goddard Space Flight Center, NASA, 02/05–09/05, $1,210,725)
Program Evaluator, "Project ISAAC – Improving Student Achievement - Advancing Communities", (Regional Education Service Agency (RESA) VII, 12/04–07/07, $38,000)
Co-Principal Investigator, "Simulation Research Laboratory Project", (Air Force Research Laboratory, USAF, 02/05–09/05, $1.061M)
Co-Principal Investigator, "Space Elevator Project", (Marshall Space Flight Center, NASA, 03/04–01/05, $2M)
Task Lead, "Collaborative Engineering Environment", Goddard Institute for Systems, Software, and Technology Research (Goddard Space Flight Center, NASA, 08/01–01/04, total funding to date $7.55M)

GENERAL (RESEARCH) ENGINEER **11/ 95 – 06/01**
National Institute for Occupational Safety and Health (NIOSH)
Division of Safety Research, Protective Technology Branch
Project Officer, "Improved Protective Equipment Design through Applied Anthropometry", National Occupational Research Agenda, Injury Program (funding approved FY01)
Research Investigator, "Development and Evaluation of Internal Traffic Control Plans", National Occupational Research Agenda, Injury Program (funding approved FY01)
Research Investigator, "A Study of Ergonomic Interventions in the Drywall Industry" (FY00-01)
Research Investigator, "Design and Sizing of Fall Protection Harnesses: A Pilot Study" (FY00)
Research Investigator, "Postural Stability Evaluation of Drywall Lifting and Hanging Tasks" (FY00)
Research Investigator, "Postural Stability and Stepping Response Times During Scaffold End-frame Carrying" (FY99-00)
Project Officer, "Laboratory Evaluation of Back Support Belts" (1/96 - 9/99)

ADDITIONAL ACADEMIC EXPERIENCE

ADJUNCT PROFESSOR **1/01 - 5/01**
Fairmont State University, School of Business, Information Systems Department
Instructor: Information Systems Special Topics (IS 4430) - Managing the Human Dynamic within Technical Teams.

ADJUNCT PROFESSOR **1/01 - 5/01**
West Virginia University, College of Engineering & Mineral Resources
Department of Industrial & Management Systems Engineering
Instructor: Engineering Design & Analysis (ENGR 102), which includes ANSI C and MATLAB programming languages.

ADJUNCT PROFESSOR **11/99 - 12/99**
West Virginia University, School of Medicine
Department of Human Performance & Applied Exercise Science
Presented a 6-hour Occupational Biomechanics Lecture Series for Kinesiology (OTH 106) in the Division of Occupational Therapy.

VISITING LECTURER/ASSISTANT PROFESSOR **8/95 - 12/95**
West Virginia University, College of Business & Economics
Department of Management & Industrial Relations
Part-time appointment in the Department of Management and Industrial Relations.
Instructor: Production/Quantitative Methods (MANG 111)
Management Science I (MANG 212)

INDUSTRIAL ENGINEERING TEACHING ASSISTANT **5/90 - 6/95**
West Virginia University, College of Engineering
Instructor: Freshman Engineering Design Analysis (E2)

Engineering Economy (IE 277)
Motion & Time Study Laboratory (IE 140)
EIT Engineering Economy preparatory course

ADDITIONAL EXPERIENCE

ENGINEERING CONSULTANT **11/89 - 4/90**
North American Philips Lighting Company
Redesigned the packaging process and assisted with reorganizing the financial records.

INDUSTRIAL ENGINEERING INTERN **9/89 - 4/90**
G.A. Brown & Sons, Inc.
Implemented a UNIX-based accounting software program and integrated with LOTUS
Developed an employee training manual.

DISTRIBUTION ENGINEER **5/89 - 8/89**
Monongahela Power Company
Programmed an RBASE application file to produce the Engineering and Construction audits, statistics, and reports.

RESEARCH ASSISTANT **10/88 - 5/89**
West Virginia University, Department of Forestry
Performed research in advanced technological methods of furniture production.

MANAGEMENT ENGINEERING INTERN **9/88 - 12/88**
West Virginia University Hospital
Assisted in the implementation of an OR scheduling software package.

JUNIOR PRODUCTION PLANNER **5/88 - 8/88**
EIMCO Coal Machinery Division
Performed job scheduling, inventory control, and production order release tasks.

INDUSTRIAL ENGINEERING INTERN **11/87 - 6/88**
Center for Entrepreneurial Studies and Development, Inc.
Provided managerial and technical assistance in a project-oriented environment, including: West Virginia Grass Roots Economic Development Project; and, Morgantown CB&T Banking Project.

COMMITTEE AND ADMINISTRATIVE SERVICE

Marion County Board of Education Technology Planning Committee (11/02 – 03/04)
Assist with revising and updating the Technology Plan for the Marion County Board of Education.

NIOSH Human Subject Review Board (HSRB) Committee Member (05/99 – 06/01)
Represent Division of Safety Research at monthly HSRB meetings.
Review for approval all human subject research protocols proposed within the Institute.
Present seminars on HSRB guidelines and procedures within the Institute.
Developing NIOSH HSRB website for project officer reference.
Assist project investigators regarding HSRB issues.

Team Leader, Division of Safety Research Ergonomics Team (1/96 - 4/97)
Coordinate and direct a multi-disciplinary team consisting of 8 members.
Establish division research objectives of an ergonomics program for the prevention of acute traumatic injuries.
Develop and present research proposals to Division management.

Team Leader, Protective Technology Branch Re-engineering Team (8/96 - 11/96)
Coordinate and direct a team consisting of 11 engineers and scientists.

Develop a team-based organizational structure for the Branch.
Implement the new Branch structure.
Presented with 1996 NIOSH On-the-Spot Award for team efforts.

Technical Reviewer for Centers for Disease Control and Prevention (CDC)

2000 - Root-cause analysis issues, National Occupational Research Agenda
1999 - Shepard Award of the National Institute for Occupational Safety and Health
1999 - Occupational Safety Checklists for Vocational and Technical Schools
1997 - "Risk Assessment and System Safety - An Instructional Module", Project SHAPE, NIOSH publication

Search Committees:

Research Candidate Selection Committee, ISR, 2002 – present
Protective Technology Branch Engineers, Division of Safety Research, NIOSH, 1996

EDUCATION

DEPARTMENT OF INDUSTRIAL ENGINEERING, WEST VIRGINIA UNIVERSITY

Ph.D., May 1995
MSIE, December 1992
BSIE, May 1990

Honors and Achievements

Summa Cum Laude Graduate
Dean's Honor List
Successful completion of Engineer-in-Training Exam, May 1990
Phi Kappa Phi National Honor Society, 1990
Golden Key National Honor Society, 1988
Tau Beta Pi National Honor Society, 1988
Alpha Pi Mu National Industrial Engineering Honor Society, 1988

Awards and Scholarships

American Association of Cost Engineers Scholarship 1991, 1992, 1993, 1994
Material Handling Scholarship 1989, 1990, 1992, 1993, 1994
West Virginia Space Grant Consortium NASA Scholarship 1992
Tau Beta Pi Fellowship 1990
Rufus K. West Undergraduate Engineering Scholarship 1990
Outstanding IE Senior Award 1990
WVU Achievement Scholarship 1988, 1989, 1990
Keyser Aluminum Engineering Scholarship 1988, 1989, 1990
Outstanding College Students of America 1989
ALCOA Outstanding Sophomore 1988
Alpha Pi Mu Outstanding Pledge 1988

Professional Societies

2004 – Association for Psychological Type
2003 – IEEE Engineering Management Society
2003 – Human Factors & Ergonomics Society
1991- American Association of Cost Engineers
1990- Tau Beta Pi
1987- Institute of Industrial Engineers
1986- National Society of Professional Engineers

Additional Training

Sponsored through the Institute for Scientific Research, Inc.

Coaching Perspective: Management & Organizational Development Symposium, 2004
VRCO CAVELib Training, 2003
Ghost Programming for Virtual Environments: PHANToM Haptic Device, 2002
Myers-Briggs Type Indicator Qualifying Workshop – OKA, 2001

Sponsored through Centers for Disease Control and Prevention

Team development ~
Building High Performing Teams (February 1999)
Total Quality Management Team Leader Training (February 1996)
Total Quality Management Facilitator Training (April 1996)

Scientific Research Development ~
Preparing Requests for Contracts (RFCs) (February 2001)
Science Survival Skills: Conducting Science at CDC (April 2000)
Anthropometric Landmarks & Measurements (March 2000)
Human Subject Assurances and Procedures (July 1999)
Human Subjects Testing Training (July 1999)
Assessing the Effectiveness of Public Health Prevention Interventions (July 1998)
Ethics Training (March 1998)
Anthropology Research (1997)
Basic Project Officer Training (February 1996)

Computer skills development ~
Internet Searches (May 1998)
Labview (May 1998)
Introduction to HTML (October 1996)
Advanced UNIX Systems (May 1996)
UNIX System for Users (April 1996)
Introduction to the UNIX world (March 1996)

PUBLICATIONS AND PAPERS

Giorcelli, RJ and Pullum, LL, "Handling the Effects of Complexity in Space Elevator Requirements", Journal of the British Interplanetary Society (JBIS), 59(9), September 2006, pp. 319 – 323.

Harris, DE, **Giorcelli, RJ**, Jacquez, AM, "A Review of Applied Statistical Tests for Interpreting Myers-Briggs Type Data" *Association for Psychological Type XV International Conference Proceedings*, Toronto, CA, July 2004.

Giorcelli, RJ and Pullum, LL, "Resolving Cognitive Conflict during the Technology Development Process for the Space Elevator", *Third Annual Space Elevator Conference Proceedings*, Washington, DC, June 2004.

Giorcelli, RJ, and Hughes, RE, "Technical note: Accuracy of a System for Measuring Three-dimensional Torso Kinematics during Manual Materials Handling", *Journal of Applied Biomechanics,* 20(2), May 2004, pp. 185-194.

Witt, K, **Giorcelli, R**, Darrah, M, Ives, B, and Peak, R, "DEVISE: A Collaborative Virtual Environment for Integrated Concurrent Engineering." *International Symposium on Collaborative Technologies and Systems Proceedings,* San Diego, CA, January 2004.

"Concept of Operations: Design Environment Using Virtual Interfaces for Smart Engineering (DEVISE) for the demonstration of Augmented Distributed Virtual Integrated Concurrent Engineering (ADVICE)" GISSTR-CONOPS-D001-UNCLASS-033103, 2003.

Harris, DE and **Giorcelli, RJ** "Personality Type and Workers' Perceptions of Their Environment and Stress" *American Psychological Association – Work, Stress, and Health Conference Proceedings*, Toronto, Canada, March 2003.

Giorcelli, RJ, Hughes, RE, Wassell, JT and Hsiao, H, "The effect of wearing a back belt on spine kinematics during asymmetric lifting of large and small boxes", *Spine*, 26(16), August 2001, pp. 1794-1798.

Hsiao, H., **Giorcelli, RJ**, Bobick, TR., "A laboratory study on the effect of back support belts", *American Public Health Association Conference*, Chicago, Illinois, November 4, 1999.

Componation PJ, Farrington PA, **Giorcelli RJ**, Byrd J., "Using risk reduction as a team performance metric", *Seventh Annual Industrial Engineering Research Conference*, Banff, Canada, May 9-10, 1998.

Jaraiedi, M. and **Giorcelli, R.**, "A Study of the Effects of Respirator Use in a Mentally Stressing Task," *Proceedings of the International Industrial Ergonomics & Safety Conference*, 1994, pp. 339-346.

Jaraiedi, M., Iskander, W., Myers, W. and **Giorcelli, R.**, "The Effects of Respirator Use on Workers' Productivity in a Mentally Stressing Task," *American Industrial Hygiene Association Journal*, 55(5), May 1994, pp. 418-424.

Theses

Giorcelli, R., "A Risk-Based Project Management System", Dissertation, West Virginia University, Industrial Engineering Department, 1995

Martin, R., "The Effects of Wearing a Respirator on the Productivity and Efficiency of a Worker", Master's thesis, West Virginia University, Industrial Engineering Department, 1992

Presentations

"Haptics: Adding the Sense of Touch to Virtual Environments", Institute for Scientific Research, Inc., Fairmont, WV, January 28, 2003.

"Team Dynamics in the Workplace", Institute for Scientific Research, Inc., Fairmont, WV, April 16, 2002.

"Improved Equipment Design through Applied Anthropometry", FY01 National Occupational Research Agenda Research Proposal Defense, NIOSH OD, Washington, D.C., January 10, 2001.

"An Investigation of Methods for Assessing Protective Glove Fit Using 3-D Hand Measurements", Division of Safety Research, NIOSH, Morgantown, WV, March 14, 2000.

"Developing Collaborations Internal to NIOSH", Construction, Agriculture, and Manufacturing Partnership Meeting, Pittsburgh, PA, November 10, 1999.

"Hazard Surveillance", Meeting with representatives of the Construction Safety Association of Ontario, Morgantown, WV, May 6, 1999.

"Research Applications for the Head Scanner", Mon General Health Fair, Morgantown Mall, Morgantown, WV, February 26, 1999.

"Applying PERT-CPM Analysis to NIOSH Research Projects", Human Factors Team, Protective Technology Branch, Division of Safety Research, NIOSH, Morgantown, WV, August 26, 1997.

"Laboratory Evaluation of Back Support Belts", Meeting with NIOSH Office of the Director and Chase Ergonomics, Washington, D.C., August 13, 1996.

Roger W. Wilson's Curriculum Vitae

Home: 304/363-2077 (voice/fax)
rwilson2@ma.rr.com

FSU Office: 304/367-4064
rwilson2@fairmontstate.edu

DEGREES EARNED

Ph.D.	**The Union Institute, 1994.** Major: Educational Technology
M.Ed.	**Wright State University, 1991.** Major: Curriculum and Supervision
B.A.	**Cedarville College, 1976.** Major: Secondary Math Education. Minor: Physics, Music
B.S.	**General Motors Institute, 1968.** Major: Mechanical Engineering. Minor: Electrical Engineering

PROFESSIONAL POSITIONS HELD

July 2004 – Present	**Fairmont State University** Director of FSU/NASA Space Grant Programs
August 2002 – Present	**Fairmont State University** Assistant Professor of Information Systems
September 1998 – August 2002	**National White Collar Crime Center** Senior Curriculum Developer
September 1996 – August 1998	**MICAH Systems, Inc.** Program Manager
June 1995 – April 1996	**CARS Information Systems** Director of Corporate MIS
August 1984 – June 1995/ August 1976 – June 1982	**Dayton Christian Schools, Inc.** Director of Technology/Teacher Computer Dept. Chair/Teacher Math/Computer Dept. Chair/Teacher Math Dept. Chair/Teacher
July 1982 – June 1984	**Roanoke Valley Christian Schools** Secondary Assistant Principal/Math Teacher
September 1988 – December 1992	**Cedarville College** Adjunct Faculty, Math
January 1991 – March 1991	**Sinclair Community College** Adjunct Faculty, CIS

CUMULATIVE EXPERIENCE

	Years
University FSU/NASA Space Grant Programs Director	2*
University FSU/NASA Space Grant Scholar Advisor	3*
University Information Systems Professor	5*
Traditional & Internet Curriculum Development/Instructor Involving White Collar Crime Analysis and Investigation	3
Automated Fingerprint Identification System (AFIS/FBI) Curriculum and CBT Development	2
7-12 Technology Curriculum Design & Development	10*
9-12 Education/Technology Instruction	19*
7-12 Education Administration	2
Adjunct College Instruction	6*
Automotive Research & Development	7

*Simultaneously

WORK EXPERIENCE

March/2007 - Present: FSU Graduate School Assistant Professor. Designed, developed, and taught the IS/Technology Management curriculum module for the MBSA 5000 MBA Essentials course.

July/2004 – July/2006: Director of FSU/NASA Space Grant Programs, Fairmont State University Undergraduate School.
As Programs Director at FSU, he oversees the new NASA W.Va. Space Grant Scholars Program, the W.Va. NASA EPSCoR (Expanded Program to Stimulate Competitive Research) Research Program and the FSU/NASA Undergraduate Research Initiative, in which students help faculty conduct research.

The latest program, funded by NASA W.Va. EPSCoR, provides seed grants to promote research of interest to NASA in West Virginia. The program is designed to support faculty in their research activities, conduct pilot experiments or demonstrate new concepts that might lead to larger projects in the future.

The NASA Space Grants Scholars program provides 15 students this year and last year with research opportunities across the country and abroad. Funded by the NASA West Virginia Space Grant Consortium, this program involves students from a wide variety of disciplines including computer science and information systems and English.

This program allows NASA IV&V, one of Fairmont State's business partners, to penetrate the community. When the students return, they share with the community the information they've collected and the experience they have gained.

August/2002 – Present: Assistant Professor of Information Systems, Fairmont State University Undergraduate School. Full time faculty member teaching (1) Computer Concepts and Applications, Microcomputer Applications in Business, Fundamentals of Information Systems, Cisco IT Essentials I and II Preparation for the Cisco A+ Certification, Systems Analysis & Design, Special Topics/Project Management in Information Systems, and Database Design & Implementation; (2) participa-ting in curriculum, assessment, and search committees, and a Senator on the FSU Faculty Senate .

Summer/2003: Faculty Research Intern, NASA IV&V. Involved in the development of the High Speed Optical Network (HSON) for NASA IV&V, the distributor of OC-12 from the Pittsburgh Super Computer Center. My part of the development was in documenting, organizing data, coordinating and participating in weekly teleconferences, and getting contracts finalized with WVU, FSU, ISR, and other organizations.

September/1998 – August/2002: Senior Curriculum Developer, National White Collar Crime Center. Involved in the hardcopy and Web development of student and instructor manuals and presentations involving computer crime, financial fraud, Internet fraud analysis, and Internet criminal investigations for federal, state, and local law enforcement. Participated in and conducted curriculum subject matter expert meetings for the design and development of new Internet courses and conducted Internet Complaint Coordinator and Internet Fraud Analyst instruction.

September/1996 – September/1998: Principal Member Technical Staff, MICAH Systems, Inc. Managed the MICAH team that developed the Automated Fingerprint Identification System (AFIS) training curriculum for Lockheed Martin/FBI at the FBI facility in Clarksburg, WV. This included full life cycle instructional systems support (training requirements analysis, training

plan, design, development, and implementation) for curriculum, paper-based materials, and computer-based multimedia training.

June 1995 – April 1996: Director of Corporate MIS, CARS Information Systems (an educational software development corporation). Managed LAN's, modem bank, telephone/voice mail systems, capital software/hardware corporate budget, and hardware maintenance contracts. Organized, documented, analyzed, developed, and supervised LANs, communications, phone/voice mail systems; selected, coordinated, and maintained the installation of a corporate voice mail system; researched technical issues. Made preliminary diagnosis, and referred repairs to appropriate vendors. Developed, presented, coordinated the corporate hardware/software capital budget; significantly reduced the hardware maintenance contract costs; and maintained software licenses.

August/1976 – June/1982, August/1984 - June/1995: Director of Technology, Computer Department Chair; Math/Computer Department Chair; Math Department Chair, Dayton Christian Schools, Inc. Expanded the high school math program, designed and developed the 7-12th grade computer program hardware, software, and curriculum; trained the administration, faculty, staff, and students. Designed, developed, and implemented new high school math and computer curricula; designed and developed Jr. High computer curricula; designed, developed, and taught network technology; designed, directed, and supervised student-built computer labs and LANs (k-12); and designed, developed, and supervised the training of the administration and faculty.

July 1982 – June 1984: Secondary Assistant Principal, Roanoke Valley Christian Schools. Duties included: expansion of the high school math program; supervision of the secondary faculty lesson planning; and development and implementation of the high school computer program.

September 1988 – December 1992: Adjunct Faculty, Math Teaching, Cedarville College. Instructed student teachers in their senior year of college. The course, "Math Teaching," was taught from a technology perspective by integrating technology into the teaching and learning aspects of K-12 mathematics.

January 1991 – March 1991: Adjunct Faculty Computer Information Systems, Sinclair Community College. Instructed Introduction to Computer Concepts course during spring quarter to adults changing careers and desiring job advancement.

July/1962 – May 1974: Senior Research & Development Project Engineer, Buick Product Engineering. Participated in the design, development, and troubleshooting of the Opel automobile in the US. Participated in Buick carburetion, emissions, and fuel economy task force design and development work. Solved customer complaints at the request of Buick dealerships across the country; demonstrated US carburetion problems to Opel design engineers in Germany and Belgium; designed and developed devices and systems to reduce the 1975 Buick emissions.

PUBLICATIONS

Authored 21 publications and presented 15 workshops on technology issues related to educational instruction and numerous Internet Fraud Analysis and Fraud Complaint Coordinator professional courses for the FBI, IRS, Postal Security, and NW3C personnel. Completed a doctoral dissertation: Organizational Structure for Developing an Educational Computer Network: An Educator's Model–Vol. I, A Case Study of the Dayton Christian Computer Program–Vol. II, and a Bachelor of Science dissertation, The Effect of Vehicle Parameters on Characteristic Speed.

GRANTS/CONTRACTS

FSU/NASA Undergraduate Research Initiative	NASA IV&V ($50,000)	9/15/05 – 8/31/06
Research Concepts Transfer to Higher Education	NASA IV&V $10,000 (included in above)	11/15/05 – 8/31/06
WV NASA Space Grant Scholarship Program	WV NASA Space Consortium $10,000	10/05 – 5/06
WV NASA Space Grant Scholarship Program	WV NASA Space Consortium $10,000	10/04 – 5/05

PROFESSIONAL AFFILIATIONS

FSU ISSO	Co-Advisor	Fall 2002 - present
Faculty Senate	Senator	Spring 2004 - present
Business Intelligence Committee	Chair	Fall 2005
IS Search Committee	Member	Spring 2004
CS Search Committee	Member	Fall 2004
Faculty Development Committee	Member	Fall 2005 – Spring 2006

PRIMARY FUNCTIONAL AREAS

- Instruction/Training
- Curriculum Development
- Program Design/Development
- Troubleshooting
- Technology Transfer
- Systems Analysis & Design

HARDWARE EXPERIENCE

PC and Macintosh computer/printer/telecommunication networked and remote systems.

OPERATING SYSTEM EXPERIENCE

MS-DOS, NetWare 3.1x, UNIX, Linux, Windows 3.1x/9x/NT/2000/XP.

SOFTWARE EXPERIENCE

Microsoft Office Pro for Windows 3.1x/9x/2000/XP, PageMaker, CorelDraw, Microsoft Visio Pro, HTML Programming, Microsoft Publisher, Microsoft Project, Microsoft FrontPage, Microsoft Outlook, Microsoft Outlook Express, IconAuthor Multimedia Publishing, LView Pro, Paint Shop Pro, Word Perfect, Netscape Communicator/Calendar, Microsoft Internet Explorer, Ascend, Ecco Pro, Commence, Visual Basic, Pascal, SQL, and Palm Desktop.

Professional classes and seminars

Completed over 18 seminars, workshops, and professional courses within the past five years on a variety of Internet, NetWare, Microsoft Office, Microsoft Project, Windows Operating Systems, LAN management topics, CorelDraw, FrontPage, HTML, and CISCO A+ Certification.

SECURITY CLEARANCES

Retained an Authorized and Unrestricted clearance status while working at the FBI Complex in Clarksburg, WV and currently has security clearance to work at the National White Collar Crime Center in Morgantown, WV.

IV. Curriculum

Intent: The curriculum combines professional requirements with general education requirements and electives to prepare students for a professional career in the information systems field, for further study in information systems, and for functioning in modern society. The professional requirements include coverage of basic and advanced topics in information systems as well as an emphasis on an IS environment. Curricula are consistent with widely recognized models and standards..

Curriculum standards are specified in terms of semester hours of study. Thirty semester hours generally constitutes one year of full-time study and is equivalent to 45 quarter- hours. A course or a specific part of a course can only be applied toward one standard.

A. Title of Degree Program

Give the title of the program under review, as specified on the transcript and diploma:

Transcript:	Bachelor of Science in Information Systems
Diploma:	Bachelor of Science (All FS Degrees are similar at this time)

B. Credit Hour Definition

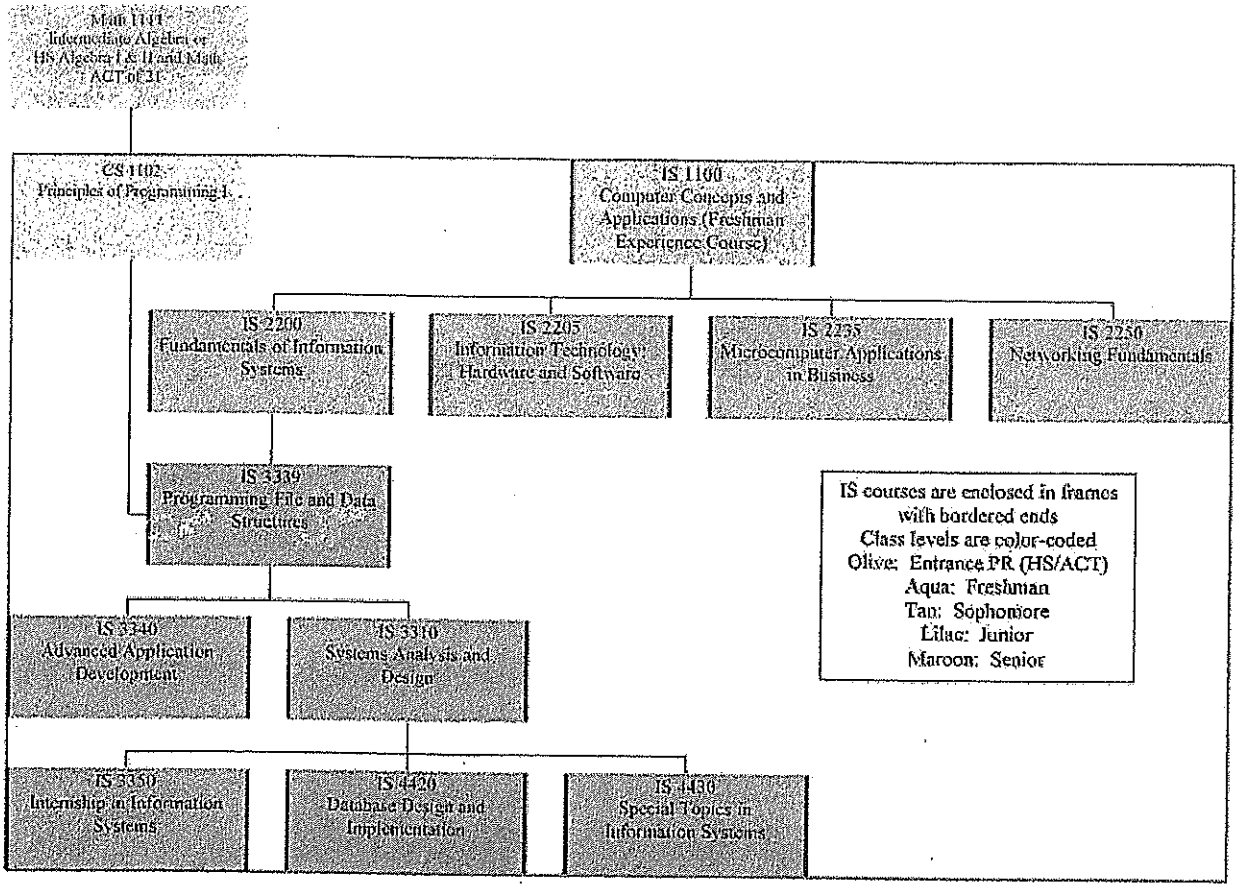
One semester hour normally means one hour of lecture or two hours of laboratory per week. One academic year normally represents from twenty-eight to thirty weeks of classes, exclusive of final examinations. Please describe below if your definitions differ from these.

The standard semester hour conversions are used at Fairmont State. One hour of lecture or two hours of laboratory equate to a credit hour. The academic year is comprised of two 15 week semesters (not counting finals week). Two summer sessions are also offered.

C. Prerequisite Flow Chart

Attach a flow chart showing the prerequisite structure of information systems courses required or allowed towards the major.

IS courses are enclosed in frames with bordered ends
Class levels are color-coded



D. Course Requirements of Curriculum (term by term and year by year)

1. Required and elective courses. In the tables on the following pages, List the courses in the order in which they are normally taken in the curriculum, classified in the appropriate categories. The data should clearly indicate how the program meets the intent of the Curriculum Category of the *Criteria for Accrediting Information Systems Programs*. These tables are designed for the semester calendar; they may be easily altered for the quarter calendar.

2. Required courses. List courses by department abbreviation (Math, Bus, IS, etc.), number, title, and number of semester hours. Apportion the semester hours for each course by category.

3. Elective courses. Designate these courses "elective." If an elective is restricted to a particular category, then tabulate the semester hours in that category and indicate the category in the listing, e. g. "elective—business." In addition, be sure that you have supplied information elsewhere in this document indicating how you ensure that students take the course in the specified category (e. g. advisement, graduation check sheets, etc.). For free electives (i.e., those not restricted to a particular category), list the semester hours under the heading "Other." Use footnotes for any listings that require further elaboration.

4. Individual courses may be split between or among curriculum areas if the course content justifies the split. For example, a course may have some of its semester hours under core information systems and some under advanced information systems. In such cases, assign semester hours to categories in multiples of one-quarter, one-third or one-half semester hour.

		Category (semester hours)					
Year Semester	Course (Dept., Number, Title)	Information Systems Core	Information Systems Advanced	Quantitative Analysis	IS Environment	General Education	Other
First Semester Freshman Year	ENG 1104 Written English I					3	
	SPEECH 1100 Speech Communication					3	
	IS 1100 Computer Concepts & Applications					3	
	ECON 2201 Economics Principles & Problems			.5	2.5		
	Scientific Discovery (LS)					4	
Second Semester Freshman Year	ENG 1108 Written English II					3	
	MATH 1112 College Algebra			3			
	IS 2235 Microcomputer Computer Applications	3					
	ECON 2202 Economic Principles & Problems II			.5	2.5		
	Scientific Discovery (LS)					4	

First Semester Sophomore Year	ACCT 2201 Principles of Accounting I			1	2		
	IS 2205 Info. Technology Hardware and Software	3					
	IS 2200 Fundamentals of Information Systems	3					
	MGMT 2209 Principles of Management				3		
	Cultural/Civilization Exploration (LS)					3	
Second Semester Sophomore Year	ACCT 2202 Principles of Accounting II			1	2		
	CS 1102 Principles of Programming	3					
	IS 2250 Networking Fundamentals	3					
	MKTG 2204 Marketing				3		
	Cultural/Civilization Exploration LS					3	
SUBTOTALS		15	0	6	15	26	0

		Category (credit hours)					
Year Semester	Course (Dept., Number, Title)	Information Systems Core	Information Systems Advanced	Quantitative Analysis	IS Environment	General Education	Other
	BUS 3306 Business Law I				3		
First	IS 3339 Programming, Data, and File Structures		4				
Semester	FIN 2201 Intro to Financial Management			1	2		
Junior	Cultural/Civilization Exploration LS					3	
Year	Artistic/Creative Expression LS					3	
	IS 3310 Systems Analysis/Design	1	2				
Second	IS 3340 Advanced Application Development		4				
Semester	BUS 2251 Corporate Communcations				3		
Junior	Society/Human Interactions					3	
Year	Artistic/Creative Expression LS					3	
First	BUS 3310 Statistics			3			
Semester	BUS 3320 International. Business				3		
Senior	IS 4430 Special Topics in IS		3				
Year	Electives						8

Second	BUS 4415 Strategic Mgmt. & Policy					3	
Semester	IS 3350 Internship in IS		3				
Senior	IS 4420 Database Design & Implementation		3				
Year	Electives						8
SUBTOTALS		1	19	4	11	15	16
TOTALS		16	19	10	26	41	16

General

Standard IV-1. The curriculum must include at least 30 semester hours of study in information systems topics.

1. If it is not obvious from the above tables that the curriculum includes at least 30 semester hours (45 quarter hours) of information systems topics, please explain.

As the tables above illustrate, there are 35 hours of information systems topics included in the curriculum (38 if you count the freshman experience course that is counted in the general studies for this analysis).

Standard IV-2. The curriculum must contain at least 15 semester hours of study in an information systems environment, such as business

2. If it is not obvious from the above tables that the curriculum includes at least 15 semester hours (22 1/2 quarter hours) of study in an information systems environment, please explain.

There are 25 hours in business-related courses. These courses are part of the core required by the School of Business. The intent of the core was that each student would have a minor in business (unstated)

Standard IV-3. The curriculum must include at least 9 semester hours of study in quantitative analysis as specified below under quantitative analysis.

3. If it is not obvious from the above tables that the curriculum includes at least 9 semester hours (13 1/2 quarter hours) of quantitative analysis, please explain.

There are two specific quantitative courses included in the curriculum and there are four other classes that have quantitative components. The total hours counted in this section is 10.

Standard IV-4. The curriculum must include at least 30 semester hours of study in general education to broaden the background of the student.

4. If it is not obvious from the above tables that the curriculum includes at least 30 semester hours (45 quarter hours) of study in general education to broaden the background of the student, please explain.

There are 41 hours of general studies required as shown in the tables above.

Information Systems

Standard IV-5. All students must take a broad-based core of fundamental information systems material consisting of at least 12 semester hours.

5. If it is not obvious from the above tables that the curriculum includes a broad-based core of fundamental information systems material consisting of at least 12 semester hours (18 quarter hours) please explain.

All students will take courses including IS 2235, IS 2200, IS 2205, IS 2250, and CS 1102 for a total of 15 hours. In addition, one hour from IS 3310 is counted as a core component making the total 16 hours of required core hours.

Standard IV-6. The core materials must provide basic coverage of the hardware and software, a modern programming language, data management, networking and telecommunications, analysis and design, and role of IS in organizations.

6. The core materials must provide basic coverage of the following five areas. Please indicate below the approximate number of hours in the core devoted to each topic.

Area	Semester hours
Hardware and software	3 (IS2205)
A modern programming language	3 (CS1102)
Data management	2 (IS2200, IS2235)
Networking and telecommunications	3 (IS2250)
Analysis and design	1 (IS3310)
Role of IS in organizations	4 (IS2200, IS2235)
Total number of semester hours in core	16

Standard IV-7. Theoretical foundations, analysis, and design must be stressed throughout the program.

7. The following areas must be stressed. Indicate the course numbers of courses embodying a significant portion of these areas:

Area	Courses (Dept., Number)
Theoretical Foundations	IS 2200, IS 3310, IS 3339, IS 3340, IS 4420, IS 4430
Analysis	IS 3310, IS 3340, IS 4420, IS 4430
Design	IS 3310, IS 3339, IS 3340, IS 4420

Standard IV-8. Students must be exposed to a variety of information and computing systems and must become proficient in at least one modern programming language.

8. To what programming languages and information and computing systems are students exposed?

Students take an introductory programming course through the CS department in C++. This is the first required language course. Students then take two intensive courses in Visual Basic.Net including ASP.Net and ADO.Net.

9. In what modern programming language(s) do students become proficient?

Students become proficient in Visual Basic.Net (including ASP.Net and ADO.Net)

Standard IV-9. All students must take at least 12 semester hours of advanced course work in information systems that provides breadth and builds on the IS core to provide depth.

10. If it is not obvious from the tables above that the curriculum includes at least 12 semester hours (18 quarter hours) of advanced information systems, please explain.

Students take IS3310 (2 hours counted here), IS3339 (4 credit hours), IS3340 (4 credit hours), IS3350, IS4420, and IS4430 for a total of 19 advanced credit hours.

11. List below the advanced areas in which students may study. Make clear by the use of "and" and "or" and parentheses which areas are required and which may be chosen from (e. g., A and two of (B or C or D)).

All students take the same courses; however topics vary in IS 4430 to allow instructors and students to study advanced topics they find interesting. In addition, students take IS3350 (Internship in Information Systems) and select their placement.

Information Systems Environment

Standard IV-10. The 15 semester hours must be a cohesive body of knowledge to prepare the student to function effectively as an IS professional in the IS environment.

12. If it is not obvious from the tables above that the curriculum includes at least 15 semester hours (22 1/2 quarter hours) of cohesive study in an IS systems environment, such as business or health, please explain.

Students complete the Business Core component of classes including courses in Management, Marketing, Finance, Accounting, Business Law, Business Communications, and Economics. There are 25 hours of business-related courses as shown in the tables above.

Quantitative Analysis

Standard IV-11. The curriculum must include at least 9 semester hours of quantitative analysis beyond pre-calculus.

13. If it is not obvious from course titles in the above tables, then explain below which required courses beyond pre-calculus contain quantitative analysis.

Students take Math 1112 College Algebra and Business 3310 Statistics. In addition, 1 credit hour each is counted here from Finance, Accounting 1 and Accounting 2 and .5 credit hour each from Economics 1 and Economics 2. This total is 10 hours of quantitative coursework.

Standard IV-12. Statistics must be included.

14. If it is not obvious from the tables above that the curriculum includes statistics, please explain.

Business Statistics (Bus 3310) is included.

Standard IV-13. Calculus or discrete mathematics must be included.

15. If it is not obvious from the tables above that the curriculum includes calculus or discrete mathematics, please explain:

A curriculum proposal is in process to add 1185 Applied Calculus to the program- some additional discussion with the math department about pre-requisites is required (1115 Trig may also have to be added).

Additional Areas of Study

Standard IV-14. The oral and written communications skills of the student must be developed and applied in the program.

16. Indicate which required courses develop and/or apply oral and written communications skills. This information should be included in course descriptions; please give course numbers below.

Communications skills	Developed in	Applied in
Oral	Speech, Business Communications	IS2200, IS2235, IS3350, IS3310, IS3339, IS3340, IS4420, IS4430
Written	English 1 and 2, Business Communications, Writing Intensive Course	IS2200, IS3350, IS3310, IS4420, IS4430

Standard IV-15. There must be sufficient coverage of global, social and ethical implications of computing to give students an understanding of a broad range of issues in this area.

17. Indicate the courses that cover global, social and ethical implications of computing. This information should be included in course descriptions; please give course numbers below.

	Covered in Course(s) (Dept., Number)
Global, Social and Ethical Implications	IS2200, IS3310, IS3350, IS4420, IS4430, Bus 3320

Standard IV-16. Collaborative skills must be developed and applied in the program.

18. Indicate which required courses address the development and application of collaborative skills; please give course numbers below.

	Developed in Course #	Applied in Course #
Collaborative Skills	IS2200, IS2235, IS3310	IS2205, IS2250, IS3339, IS 3340, IS3350, IS4420, IS4430

E. Course Descriptions

1. For each required or elective information systems course that can be counted in the curriculum being reviewed for accreditation, include a two-page or three-page course outline at this point in the Self-Study. If your documentation does not exactly follow this format, be sure that all of the requested information (if applicable) is present, and please in any case adhere to a common format for all course descriptions.

Note that the outline format calls for information on the content of the course in the areas of: information systems; theory; communications skills development and application; global, social and ethical implications of computing; and analysis and design experiences. This is not intended to suggest that every course must have some coverage of each of these topics. For a given course, please include the information from a listed area only if the course has significant content in that specific area.

Course descriptions follow this section in the printed version or are available by clicking here.

COURSE DESCRIPTION

Dept., Number		Course Title	
Semester hours		Course Coordinator	
		URL (if any):	

Current Catalog Description

Textbook

References

Course Goals

Prerequisites by Topic

Major Topics Covered in the Course

Laboratory projects (specify number of weeks on each)

Estimate Curriculum Category Content (Semester hours)

Area	Core	Advanced	Area	Core	Advanced
Hardware and Software			Networking and Telecommunications		
Modern Programming Language			Analysis and Design		
Data Management			Role of IS in an Organization		
Quantitative Analysis			Information Systems Environment		

Oral and Written Communications

Every student is required to submit at least _____ written reports (not including exams, tests, quizzes, or commented programs) of typically _____ pages and to make _____ oral presentations of typically _____ minute's duration. Include only material that is graded for grammar, spelling, style, and so forth, as well as for technical content, completeness, and accuracy.

Collaborative Skills

Please describe opportunities for developing collaborative skills in this course.

Global, Social and Ethical Issues

Please list the topics that address the global, social and ethical implications of computing covered in all course sections. Estimate the class time spent on each topic. In what ways are the students in this course graded on their understanding of these topics (e.g., test questions, essays, oral presentations, and so forth)?

Theoretical Foundations

Please list the types of theoretical material covered, and estimate the time devoted to such coverage.

Analysis

Please describe the analysis experiences common to all course sections.

Design

Please describe the design experiences common to all course sections.

2. Course display for the visit. The course outline for each required or elective information systems course must also be included in a display of course materials that is available for study at all times during the evaluation visit. The course material display must include at least the following for each course that can be counted in the information systems segment of the curriculum being evaluated.

- Course name and number, number of credits, meeting times, etc.
- Textbook and other required material (e.g. manuals, reference booklets, standards and documents)
- Instructor's name and contacts
- Syllabus/schedule *(provide hardcopy and URL if only available on-line)*

- Introductory pages that include course objectives, pedagogical approach, assessment methods (and how these relate to the program objectives if appropriate)
- Course policies
- Introductory sheet that indicates course locations or sites that show evidence of writing, presentations, ethics etc. as appropriate
- Assignments and projects, tests, exams and important handouts
- Student work (examples of graded high/medium/low quality work as well as tests/exams etc.)
- Any feedback mechanisms/examples to students that might be on-line
- Any substantive electronically posted communication, threaded discussion, or teamwork etc.
- Course evaluations (measures of success that include, for example, the results of student surveys and the achievements of students in current or subsequent courses)
- Proposed or changes as a result of formative surveys

If a course is taught wholly on-line by a non-resident faculty member then data about that faculty member must be included in the Self-Study or provided in separate documents for credentialing purposes. In addition, for wholly on-line courses or a complete degree program, the results of an electronic CAC survey to that group of students regarding their experiences in the program (comparative to the usual on-site class visit) should be made available to the visiting team.

If available, please provide the location of URL's on a CAC-visit Website or site containing a set of URL links that would allow an evaluator to retrieve specific data directly (if not provided in hardcopy) as indicated above. These should be available before the time of the visit.

Note: In addition to the display materials, it would be very helpful to the visiting team if all assessment documentation could be available in the same location as the display materials. It is also very helpful if the display room contains computers with network connections.

Department	Computer Science
Title	Principles of Programming
Number	1102
Description	A study of the foundations of software development. Students are introduced to computer organization, data representation, the software development cycle, and programming concepts including control structures, functions, elementary data structures and text file processing. Programming projects in the language C++ are assigned to provide students with experience in software development.
Course Coordinator	Don Tobin
Course Topical Content	Introduction to Computers and Programming Introduction to C++ Data Types Input/Output Expressions Functions Selection Repetition File I/O Arrays
Course Objectives	1. Summarize the evolution of programming languages from machine-level programming to the current generation of programming languages. 2. Differentiate between the procedural programming and the object-oriented programming paradigms. 3. Describe the phases of program translation from source code to executable code. 4. Understand the process of writing, compiling, and executing programs. 5. Identify and describe the properties of a variable such as its identifier, data type, value, size, scope, and associated address. 6. Demonstrate reading and writing data from data streams for the C++ standard inputs and outputs as well as files. 7. Evaluate C++ expressions. 8. Decompose a large problem to be solved into functions, each solving one part of the problem. 9. Compare the two methods of parameter passing in functions: pass by value and pass by reference. 10. Evaluate C++ logical expressions and use them to make decisions in "if...else" and "switch" statements. 11. Demonstrate how to use the three primary C++ repetition (while, for, and do...while) structures, including loop initialization, loop updating, and loop termination.
Text	Computer Science, A Structured Approach Using C++, second edition, Forouzan-Gilberg, Course Technology, 2004.
Special Considerations	
Preceding course(s)	Math 1100 or a MATH ACT score of 21 or MATH SAT score of 500 or Compass score of 49.
Successive course(s)	Foundation course for IS and CS Majors
Frequency of offering	Every Semester (multiple sections)
Degree or certificate counted towards	Bachelor of Science in Information Systems and Bachelor of Science in Computer Science
Credit Hours	3
Curriculum Content Category	Modern Programming Language
Labs	This course has approximately one laboratory project every two weeks.
Level	Core
Communications	
Team Work	
Global Social and Ethical	
Theory	Theory of programming is covered.
Analysis	Analysis is introduced.
Design	Students design low-level programming solutions.

Department	Information Systems
Title	Fundamentals of Information Systems
Number	2200
Description	The course is an introduction to basic business information systems including networking, systems analysis and design.
Course Coordinator	Tracie Dodson
Course Topical Content	The Organization In The Digital Economy The IT-Based Organization In The Digital Economy Information Technologies: Concepts And Management Applying IT For Competitive Advantage Data And Knowledge Management Network Computing E-Business And E-Commerce Mobile, Wireless, And Pervasive Computing Applying IT For Competitive Advantage Transaction Processing, Functional Applications, And Integration Enterprise Systems: From Supply Chains To ERP To CRM Interorganizational And Global Information Systems Managerial Support Systems Acquiring And Implementing Systems Acquiring IT Applications And Infrastructure IT Ethics, Impacts, And Security
Course Objectives	1. Students should be able to identify the components of an information system. 2. Students should be able to understand the fundamental principles of information systems and recognize the effective use of information systems in a business environment. 3. Students should be able to differentiate data from information and any other management decision-making terminology in the business environment. 4. Students should be able to analyze a business problem or situation and determine if and/or how computer applications could be used to enhance the decision-making process. 5. Students should identify and apply ethical information technology management concepts to gain a competitive advantage in business. 6. Students should understand that strategic information systems and reorganization principles may be applied to achieve the goals of the organization. 7. Students should be able to function effectively as a member of a team. 8. Students should be able to competently present information systems-related material to a group.
Text	Management Information Systems, 6th edition, Stephen Haag, McGraw-Hill, 2007.
Special Considerations	Students complete a major project including a major paper and presentation
Preceding course(s)	IS 1100
Successive course(s)	Foundation course for IS Majors
Frequency of offering	Every Semester (multiple sections)
Degree or certificate counted towards	Required in all majors and degrees in the School of Business (Part of Business Core)
Credit Hours	3
Curriculum Content Category	Role of IS in an Organization, Data Management, and IS Environment
Labs	
Level	Core
Communications	Written and Oral
Team Work	Projects are in teams. Teams are evaluated on teamwork as well as the actual project produced.
Global Social and Ethical	Students are exposed to the global, social, and ethical implications of information systems.
Theory	Theory of information systems is covered.
Analysis	Analysis is introduced.
Design	

Department	Information Systems
Title	Computer Hardware & Software
Number	2205
Description	This course provides the hardware and operating system concepts necessary for system design. System architecture and operating systems are considered for single- and multiple-user computer systems.
Course Coordinator	Tracie Dodson/Roger Wilson
Course Topical Content	This course will provide students an opportunity to obtain the knowledge and skills necessary to service microcomputer hardware and software, and prepare for a successful result on the CompTIA A+ PC exam.
Course Objectives	1. Describe the basics of information technology. 2. Identify the components of a computer. 3. Disassemble/assemble an operational computer. 4. Install/configure various Windows operating systems. 5. Configure upgrade multimedia hardware upgrades. 6. Apply advanced hardware fundamentals, including servers. 7. Apply networking fundamentals. 8. Apply various printer and printing concepts. 9. Perform preventative maintenance and upgrading. 10. Troubleshoot PC hardware and software problems.
Text	Cisco Networking Academy Online Curriculum (Recommended: IT Essentials I: PC Hardware and Software Companion Guide, 2nd Edition, Hewlett Packard, Prentice Hall, 2005).
Special Considerations	
Preceding course(s)	None
Successive course(s)	None
Frequency of offering	Every Semester
Degree or certificate counted towards	Associate Degree, Bachelor degree of Information System; A+ Certification
Credit Hours	3
Curriculum Content Category	Hardware and Software
Labs	This course has a lab component and completes a significant number of labs. The class is structured as 2 hours lecture and 2 hours lab per week.
Level	Core
Communications	
Team Work	Labs are performed in teams.
Global Social and Ethical	Global issues relating to hardware and communication are covered.
Theory	Some hardware theory is covered.
Analysis	
Design	

Department	Information Systems
Title	Microcomputer Applications in Business
Number	2235
Description	This course will provide students the opportunity to develop and use basic decision support systems. A problem solving approach is used to introduce students to the modern business decision making process. The emphasis is on making business decisions by using and customizing off-the-shelf software
Course Coordinator	Tracie Dodson
Course Topical Content	Microsoft Word Creating Styles, Outlines, Tables, and Tables of Contents Creating Form Letters and Mailing Labels Collaborating with Others and Creating Web Pages Microsoft Excel Working with Excel Lists Working with Multiple Worksheets and Workbooks Working with Excel's Editing and Web Tools Developing an Excel Application Working with Logical Functions, Database Functions, and Advanced Filtering Integrating Excel with Other Windows Programs Microsoft Access Relational Databases and Database Design Enhancing a Table's Design, and Creating Advanced Queries Creating Custom Forms Creating Custom Reports Integrating Access with the Web and with Other Programs Microsoft PowerPoint Presenting a Slide Show Integrating PowerPoint with Other Programs and Collaborating with Workgroups Creating Animation in Slide Shows Working with Graphics and Hyperlinks
Course Objectives	1. Students should be able to understand the fundamental principles of Information Systems and recognize the effective use of information systems in a business environment. 2. Students should be able to analyze a business problem or situation and determine if and/or how computer applications could be used to enhance the decision-making process. 3. Students should be able to construct professional-quality, computer-generated documents to support a given business scenario. The application of the computer process should provide an effective and beneficial aid to the particular circumstances.
Text	Go! With MS Office 2007 Intermediate, Gaskin, Prentice Hall, 2007.
Special Considerations	Students complete cases that reinforce the use of Microsoft Office in business situations
Preceding course(s)	IS 1100
Successive course(s)	Upper-level Management Courses
Frequency of offering	Every Semester (multiple sections)
Degree or certificate counted towards	Required in all majors and degrees in the School of Business (Part of Business Core)
Credit Hours	3
Curriculum Content Category	Role of IS in an Organization, Data Management, and IS Environment
Labs	Daily application projects are completed.
Level	Core
Communications	Oral
Team Work	Students complete bi-monthly assessments in teams.
Global Social and Ethical	
Theory	
Analysis	Students are expected to analyze business problems.
Design	

Department	Information Systems
Title	Networking Fundamentals
Number	2250
Description	This course provides an in-depth knowledge of data communications and networking requirements, including networking and telecommunications technologies, hardware and software. Students will explore the analysis and design of networking applications in organizations. Management of telecommunications networks and evaluation of connectivity options are also covered. Students learn to evaluate, select and implement different communication options within an organization. The course consists of two hours of lecture and two hours of lab per week.
Course Coordinator	Tracie Dodson/Holly Yuan
Course Topical Content	Connecting to Networks and the Internet Network Math Networking Basics and Terminology Bandwidth The OSI and TCP/IP Networking Models Copper Media, Optical Media, Wireless Media Frequency-Based Cable Testing Signals and Noise Cabling LANs , Cabling WANs Ethernet Fundamentals Ethernet Operation 10- and 100-Mbps Ethernet & Gigabit Ethernet and Beyond Ethernet Switch Operations LAN Design: Collision Domains and Broadcast Domains TCP/IP Model IP Addressing Fundamentals & Assigning and Mapping IP Addresses IP Routing (Forwarding)& Routing Protocols IP Subnetting The TCP/IP Transport Layer The TCP/IP Application Layer
Course Objectives	1. Students will understand the OSI model. 2. Students will understand the basics of Ethernet technologies. 3. Students will understand topologies and cabling LANs and WANs. 4. Students will know the different network media. 5. Students will know the basics of TCP/IP. 6. Students will be able to configure IP addressing. 7. Students will understand and be able to apply routing fundamentals.
Text	Cisco Networking Academy Online Curriculum (Recommended: Networking Basics CCNA 1 Companion Guide Odin, Cisco Press, 2006).
Special Considerations	This course is an introduction to networking. Students will learn networking through hands-on lab exercises, on-line curriculum, exams and lectures. It is the first course in a comprehensive four-course sequence that will prepare students to design, build, maintain and troubleshoot small to medium size (1000 nodes) networks.
Preceding course(s)	None
Successive course(s)	INFO 2251; INFO 2252; INFO 2253
Frequency of offering	Every Semester
Degree or certificate counted towards	Associate Degree, Bachelor degree of Information System; CCNA Certification
Credit Hours	3
Curriculum Content Category	Networking and Telecommunications
Labs	This course has a lab component and completes a significant number of labs. The class is structured as 2 hours lecture and 2 hours lab per week.
Level	Core
Communications	
Team Work	Labs are performed in teams.
Global Social and Ethical	Global issues relating to networking and communication are covered.
Theory	Networking theory is covered.
Analysis	Students begin to see how networks are analyzed.
Design	Students design network solutions (entry-level).

Department	Information Systems
Title	System Analysis and Design
Number	3310
Description	Students in this course are introduced to the analysis and design of computerized systems for handling the data processing requirements of a typical business. Topics discussed include information flow, file design, systems integration, system security and controls. Students are required to write portions of the system specifications for an exemplary business application
Course Coordinator	Tracie Dodson/Roger Wilson
Course Topical Content	Systems Development Roles Systems Development Building Blocks Systems Development Processes Systems Development Project Management Systems Analysis Fact-Finding Techniques for Requirements Discovery Modeling System Requirements with Use Cases Data Modeling and AnalysisProcess Modeling Feasibility Analysis and the System Proposal Object-Oriented Analysis and Modeling Using the UML Systems Design Application Architecture and Modeling Database Design Output Design and Prototyping Input Design and Prototyping User Interface Design System Design Systems Construction and Implementation Systems Operations and Support
Course Objectives	1. Students should be able to understand complex systems (particularly software systems) at a level of abstraction above the implementation and should be able to explain and create data flow diagrams of the systems. 2. Students should be able to define the role of an analyst and alternate analysis methods analysts use to consider system specifications. 3. Students should be able to describe how to determine a project's feasibility and justify the decision in a professional manner. 4. Students should be able to define and explain methods of requirements gathering and understand the topics that are fundamental to creating requirements specifications prior to designing and implementing complex software systems including:a. Software Life Cycle Phases (with emphasis on early stages and Unified Development Process) b. Analysis: including Object-Oriented and Procedural c. Software Design 5. Students should be able to explain the proposal process and content including the elements of effective design for input and output.
Text	Systems Analysis and Design, Whitten-Bentley, McGraw Hill, 2008.
Special Considerations	
Preceding course(s)	IS 3340
Successive course(s)	IS 4420, IS 4430
Frequency of offering	Every Spring
Degree or certificate counted towards	Bachelor of Science in Information Systems
Credit Hours	3
Curriculum Content Category	Analysis and Design
Labs	
Level	Core and Advanced
Communications	Written and Oral
Team Work	Students work on projects in teams.
Global Social and Ethical	Global concerns are covered in discussions of projects and how the world is flat.
Theory	Systems theory is covered.
Analysis	Analysis is covered in-depth.
Design	Design is covered in-depth.

Department	Information Systems
Title	Programming, Data, and File Structures
Number	3339
Description	This course provides an understanding of data, files, and business reports. It requires students to plan, write, and process business programs which stress data and file manipulation. The course also includes the principles of effective business report design
Course Coordinator	Tracie Dodson/Rebecca Giorcelli
Course Topical Content	Introduction to Visual Basic.NET Controls Variables, Constants, and Calculations Decisions and Conditions Menus, Sub Procedures, and Sub Functions OOP--Creating Object-Oriented Programs Lists, Loops, and Printing Arrays Programming With Web Forms Accessing DataBase Files Saving Data and Objects in Files Functions
Course Objectives	1. Students should be able to explain the concepts of classes, objects, properties, methods and events and apply these to create object-oriented programs. 2. Students should be able to develop programs using fundamental programming principles (e.g., variables, constants, calculations, decisions, procedures, functions, lists, loop structures, and arrays) 3. Students should be able to implement proper design techniques in applying controls to create user interfaces. 4. Students should be able to develop simple web applications using Visual Basic .NET Web Forms.
Text	Programming in Visual Basic.Net 2005, 6th edition, Bradley-Millspaugh, McGraw-Hill, 2007
Special Considerations	
Preceding course(s)	CS 1102, Math 1111
Successive course(s)	IS 3340, IS 3310, IS 3350, IS 4420, IS 4430
Frequency of offering	Every Semester
Degree or certificate counted towards	Bachelor of Science in Information Systems
Credit Hours	4
Curriculum Content Category	Modern Programming Language
Labs	Students complete applied labs daily and major project labs throughout the semester.
Level	Advanced
Communications	Oral
Team Work	This class is experimenting with team programming.
Global Social and Ethical	
Theory	Visual programming and OO theory are covered.
Analysis	Students analyze business situations.
Design	Students design programming solutions to the business problems they analyze.

Department	Information Systems
Title	Advanced Application Development
Number	3340
Description	This is an advanced course in application programming. This course includes table handling, sorting, external report generation, file updating and video forms design, and object-oriented programming
Course Coordinator	Tracie Dodson/Rebecca Giorcelli
Course Topical Content	Visual Studio.NET Using Classes for Multitier Applications Windows Database Applications Windows Database Using Related Tables Windows Database Updates Using Web Forms - ASP.NET Web Forms Database Web Forms Database Updates XML Web Services Writing Database Reports Using Crystal Reports Using Collections Creating Custom Controls Creating Help Files
Course Objectives	1. Students should be able to use classes in developing multitier applications. 2. Students should be able to develop Windows database applications with related tables using object-oriented programming. 3. Students should be able to create controls for customizing user interfaces. 4. Students should be able to develop advanced web-based database applications.
Text	Advanced Programming in Visual Basic.Net 2005, 3rd edition, Bradley-Millspaugh, McGraw-Hill, 2007.
Special Considerations	
Preceding course(s)	IS 3339
Successive course(s)	IS 3310, IS 3350, IS 4420, IS 4431
Frequency of offering	Every Semester
Degree or certificate counted towards	Bachelor of Science in Information Systems
Credit Hours	4
Curriculum Content Category	Modern Programming Language
Labs	Students complete applied labs daily and major project labs throughout the semester.
Level	Advanced
Communications	Oral
Team Work	This class is experimenting with team programming.
Global Social and Ethical	
Theory	Visual programming and OO theory are covered.
Analysis	Students analyze business situations.
Design	Students design programming solutions to the business problems they analyze.

Department	Information Systems
Title	Internship in Information Systems
Number	3350
Description	This internship course is designed as a learning experience which requires the integration of information systems theory with actual job experience in an information systems department. The student must be enrolled in the four-year information systems program. The employer is responsible for evaluating and reporting the development of the student.
Course Coordinator	Tracie Dodson
Course Topical Content	On the Job Training Resume Preparation Job Search Skills Time Management
Course Objectives	1. Students should self-motivated and be able to apply for and work in an approved environment. 2. Students should reflect on knowledge gained in coursework and analyze their personal ability to perform tasks they are asked to complete. 3. Students should be able to communicate effectively with professionals in the field of Information Systems. 4. Students should be able to locate and attend relevant professional development and seminars 5. Students should obtain practical experience in the use of information systems related skills and techniques necessary for a successful career.
Text	None
Special Considerations	Students work 140 hours in an approved work environment
Preceding course(s)	IS 3339, IS 3340, IS 3310
Successive course(s)	
Frequency of offering	Every Semester (on Demand)
Degree or certificate counted towards	Bachelor of Science in Information Systems
Credit Hours	3
Curriculum Content Category	Varies by position.
Labs	On the job daily.
Level	Advanced
Communications	Written and Oral
Team Work	Students are expected to be team-players on the job and employers are expected to evaluate this skill.
Global Social and Ethical	Students are expected to understand the global, social, and ethical environment and reflect on these items in their journals.
Theory	Students are expected to reflect on the theory they have learned in class and how it applies to their internship.
Analysis	Students are expected to be able to thoughtfully consider any situation they are presented and analyze it to justifiable solution proposal.
Design	Students are expected to be able to follow through on any analysis and design a working solution.

Department	Information Systems
Title	Database Design and Implementation
Number	4420
Description	This course covers information systems design and implementation within a database management system environment. Students will demonstrate their mastery of the design process acquired in earlier courses by designing and constructing a physical system using database software to implement the logical design. The class will use Microsoft Access or Oracle, when available, for logical database design. Data models and modeling tools, CASE tools, code/application generation, and client-server planning are among topics to be covered
Course Coordinator	Tracie Dodson
Course Topical Content	Database Concepts Database Systems Data Models Design ConceptsThe Relational Database Model Entity-Relationship (ER) Modeling Normalization of Database Tables Advanced Design and Implementation An Introduction to Structured Query Language (SQL) Advanced SQL Database DesignAdvanced Database Topics Transaction Management and Concurrency Control Distributed Database Management Systems Object Oriented Databases The Data Warehouse Databases and the Internet Databases in Electronic Commerce Web Database Development Database Administration Database Administration Designing Databases with Visio Professional An Introduction to Unified Modeling Language (UML) Database Performance Tuning Client/Server SystemsClient/Server Network Infrastructure The Hierarchical Database Model The Network Database Model
Course Objectives	1. Students will be able to organize data to be used in the design of a database. 2. Students will design a database based upon a given set of data. 3. Students will apply normalization procedures in the design of a database. 4. Students will present to a group a database from the design through implementation stages.
Text	Database Processing, 10th edition, Kroenke, Prentice Hall, 2006.
Special Considerations	
Preceding course(s)	IS 3339, IS 3340, IS 3310
Successive course(s)	
Frequency of offering	Every Spring
Degree or certificate counted towards	Bachelor of Science in Information Systems
Credit Hours	3
Curriculum Content Category	Database Management
Labs	Frequent labs are required in class and outside class.
Level	Advanced
Communications	Written and Oral
Team Work	Students work on projects in teams.
Global Social and Ethical	Students are expected to understand security issues and the impact of data on society. Students are expected to understand ethical practices of data management.
Theory	Database theory is covered.
Analysis	Students analyze business data needs.
Design	Students design databases to meet business needs.

Department	Information Systems
Title	Special Topics in Information Systems
Number	4430
Description	Current topics of interest in information systems are addressed in this course. The topic to be covered will be selected by the instructor and approved by the department coordinator and School chair. Typical topics include application design using Visual Basic or client-server program development using Oracle.
Course Coordinator	Tracie Dodson
Course Topical Content	Project Management Growth: Concepts and Definitions Organizational Structures Organizing and Staffing the Project Office and Team Management Functions Time Management Conflicts Special Topics The Variables for Success Working with Executives Planning Network Scheduling Techniques Project Graphics Pricing and Estimating Cost Control Trade-off Analysis in a Project Environment Risk Management Managing Cultural Differences Strategic Planning for Excellence in Project Management Modern Developments in Project Management The Impact of Concurrent Engineering on Project Management Quality Management Contracts and Procurement
Course Objectives	1. Students will gain a further understanding and application of information systems. 2. Students will be able to apply advanced research techniques to various topics. 3. Students will understand the ethical implications of the subject selected. 4. Students should be able to function effectively as a member of a team. 5. Students should be able to explain information systems concepts in information systems-related material to a group.
Text	Project Management, 9th edition, Kerzner, Wiley, 2005. (Also other texts/material by topic)
Special Considerations	Material presented in this course varies; however, once a year, Project Management is presented as a topic.
Preceding course(s)	IS 3339, IS 3340, IS 3310
Successive course(s)	
Frequency of offering	Every Semester (on Demand)
Degree or certificate counted towards	Bachelor of Science in Information Systems
Credit Hours	3
Curriculum Content Category	Varies
Labs	Varies
Level	Advanced
Communications	Written and Oral
Team Work	Students work on projects in teams.
Global Social and Ethical	Global, social, and ethical issues are discussed in context.
Theory	Special topic theory is covered.
Analysis	Students apply their skills in context.
Design	Students apply their skills in context.

V. Technology Infrastructure

Intent: Computing resources are available, accessible, and adequately supported to enable students to complete their course work and to support faculty teaching needs and scholarly activities.

In Section VI we will ask you to describe laboratory equipment planning and acquisition processes. Please do not repeat any of that information here; simply refer to that section if necessary to avoid duplication.

A. Computing Resources

Describe the computing resources available for use in the information systems program.

1. Describe the computing resources used by students in the program. Indicate the types of software available in each category. Specify any limitations that impact the quality of the educational experience.

Institutional resources:

There are about 2000 plus computers on campus, with almost 900 of these available for student use related to instruction and another 400 on the desks of every full-time faculty member.

There are over 30 clusters of instructional computers spread throughout the four University locations. Three of them are dedicated to the Information Systems and Information Technology. All Fairmont State students, including the IS majors, may also use any of the publicly accessible labs at any of the University sites...including nine or ten sizeable clusters in buildings and libraries.

All computers are kept up to date and there are common, minimum standards for equipment across the University. The current standard operating system is in transition from Windows XP to Windows Vista. Microsoft Office is the primary application package installed on every computer across the campus and provides for a common environment no matter which lab a student may use to do their work.

Almost 70% of these computers are new in the last three years. The current policy is to implement a three year replacement lifecycle for all desktop computers on campus. With the costs for that being budgeted as a continuing operational expense. Next year will be the second year of implementing that plan.

Almost all of the instructional computing equipment as well as the desktops for full-time faculty across the University are funded centrally via campus technology fees. In some cases, such as classes that have consumable costs like the CCNA networking classes (IS 2250, 2251, 2252, and 2253) a specialized fee has been established to cover the cost of material used in labs.

The replacement cycle for PC equipment across the campus, averages three years. In some cases (like some faculty desks and/or general purpose labs) the replacement cycle may be four years.

Program resources:

Specifically, the four labs in the IS department have all been upgraded within the last five years. One lab, Colebank Hall Room 144 received new computers summer 2007 for use in the Fall 2007. The lab configuration for all IS computer labs is 30 student PCs and one instructor station. The instructor station is connected to both an interactive white board as well as a larger projector (Bryant Place does not have an interactive white board). All IS labs will be using Vista and Office 2007 beginning Fall 2007. In addition, the IS labs have Visual Studio.Net, MS Project, SQL Server 2005, Visio, Crystal Ball, Dreamweaver, and other packages used in classes. The specialized software, like Dreamweaver, that is used in single courses may not be installed in every lab; however, each package is also it is installed on machines that are publicly available to students who may not have the software to work with outside of class.

The hardware and networking lab contains PCs that are used for connecting to the routers and switches configured in networking classes as well as PCs that are used for assembly and troubleshooting in the hardware and OS classes. These PCs are in addition to the 30 that are used for curriculum and general class purposes. There are also two servers used both for deployment and also to teach server configuration. These servers are not maintained by the IT staff at FSU but the staff will respond to any inquiries or requests for aid to the best of their ability and as their time allows.

Other resources:

The campus is 100% networked, including every computer in every lab, faculty office, staff office, library, etc. There are also additional live ports in every classroom and other area of the University. In each case, the minimum connection is switched 100Mb with 1000Mb becoming more prevalent and encompassing approximately 60% to 70% of locations. With the popularity of wireless continually increasing; wireless access points have been deployed to many common areas across campus (including several off campus locations). Wireless access is currently offered in all academic and administrative buildings on campus.

There are now between 30 and 35 classrooms across the college that provide permanent capability for electronic instruction. Typically this includes a ceiling mounted LCD projection unit and a networked computer workstation and peripherals. It may also include a VCR, an interactive white board, and/or a document projection unit.

All students are provided a college email account as well as personal web/FTP space. These are provided for as long as the account remains active; alumni are encouraged to continue use of their accounts. These services are funded via Office of Information Technology. The mail system is Outlook Web Access and, through an MS exchange server, provides faculty,

staff, and students opportunities to use calendaring, public folders, and other meeting and contact items.

2. Describe the computing resources planning, acquisition, and maintenance processes and their adequacy. Include discussion of these topics for university-wide computing resources available to all students (if used by your majors), your own laboratories and equipment (if applicable), and resources controlled by other departments and/or schools (if used by your majors).

The computing resources across campus are planned, acquired, and maintained by the IT Department. There is a three-year cycle of replacement that the department oversees and shares with faculty via the Academic Computing Committee. Any additional requests are made via this committee or through the academic channels.

Computer support and maintenance is provided centrally by the Office of Information Technology Solution Center which includes the Call Center. Again, funding for maintenance services is provided centrally, except for some very specialized equipment found in the IS hardware and networking lab. The Call Center is designated as the single point of contact for all Fairmont State computer related issues. Students, faculty and staff can contact the Call Center by dialing x4810 or emailing help@fairmontstate.edu 24 hours a day.

The college maintains a fully integrated wide area network with full access to the open Internet. The primary connection from campus is an ATM DS3 pipe. Students and faculty have full, seamless access to all college resources (e.g., college services, library databases, etc) from any location at any of the four primary college sites.

3. Discuss how you assess the adequacy of your laboratory and computing support.

When the campus began to build a new student center, the IS program lost space including three classrooms and two labs. The current layout is a temporary design and the labs are in transition. The current labs are too small for instruction for IS classes. Because of this, the IS Department is moving in December 2007 to a newly remodeled facility that has larger rooms and more opportunity for expansion. These rooms are more than adequate for instruction. Sample minutes from the Academic Computing Committee are:

Minutes
Academic Computing Advisory Committee Meeting
To Discuss Draft of the IT Strategic Plan
Thursday, February 1, 2007

The Academic Advisory Committee met Thursday, February 1, 2007 at 12:30 p.m. in Room 218 Hardway Building to review the *DRAFT* of the IT Strategic Plan. Members present: Michael J. Bestul, Mary-Lynne Barnett, Toru Chiba, Tracie Dodson, Peter Lach, Deborah Nestor, Peter Wilkins, Phil Yeager and Dave Young.

Introduction

- Mike Bestul presented a *DRAFT* copy of the IT Strategic Plan to each attendee. Mike explained that he had received input for the *DRAFT* from the Department of Information Technology as well as the President's Cabinet. He asked that each person review the Plan and present feedback to him by email.

- Peter Wilkins introduced himself and asked that each person on the committee announce their name and the area that they represent.

IT Strategic Plan

- Mike explained that the main dialogue regarding feedback would take place at a follow-up meeting that will be scheduled at a later date. Mike asked everyone to look over the Plan and let him know if there was anything missing from the Plan or other areas that they think need to be emphasized. Mike also said that he will be asking the Strategic Plan Steering Committee as well as the student population for their opinions on the *DRAFT* of the plan.

- Mike noted that the goals of the IT Strategic Plan directly align with the goals of the Fairmont State Strategic Plan.

- Mike went over the highlights of the IT Strategic Plan beginning with Page 6, Organizational Structure – Fairmont State IT. This section breaks the Department of Information Technology into several distinct areas including: Libraries; Internal Applications; External Applications, Solution Center; Networks, Servers, and Security; Project Management and Learning Technology Center. This section also includes an Organizational Flow Chart for the areas. Mike noted that although Peter Wilkins is assigned under a separate Project Management section, his task is to manage and coordinate projects across all of the various areas.

- Mike also went over the IT Strategic Planning Process/Background on Page 8 of the Plan. Mike stated that IT is currently at Step 6 in the process which entails vetting of this revised draft document with committees of faculty, staff, and students.

- Mike asked if anyone had any questions or comments on the Plan so far.
  a) Phil Yeager/Would you like us to take the Plan to the faculty in our area for their feedback? Mike/Yes, that is a good idea. Peter/A PDF version is available if that would be easier. Deborah Nestor/Faculty should be given the sections that pertain to them only instead of the entire Plan.
  b) Tracie Dodson/Communications should be emphasized in the long term goals of the plan along with a detailed plan of action for improvement.
  c) Mary-Lynn Bennett/Define Strategic Themes. Mike/The themes are major trends/patterns in IT in Higher Education that need special attention. Trends today include: data, voice, and video around specific platforms including Ipod, cellular/wireless phones, etc.
  d) Mary-Lynn Bennett/The specific order of the plan seems odd especially regarding the Themes. Mike/The Themes set the stage for the goals.
- Mike briefly went over each of the Strategic Themes.
  The IT Strategic Themes include: Convergence; Reliability; Performance; Identity Management; Systems Integration/Data Warehouse; Cost Containment/Revenue Generation/Institutional Efficiency; Security; Teaching and Learning; Customer Service and Student Support and Knowledge Management and Institutional Research. Each Theme includes a description along with a tactical approach that will be used to implement the theme and also align with the Fairmont State Institutional Strategic Plan.
  e) Tracie Dodson/Likes the idea of listing funding requirements to complete the goals. Would like to see how stakeholders will be involved in the decision making process.
  f) Mary-Lynn Bennett/Is this a five year plan? If so, funding amounts could quickly become out of date. Mike and Peter/No, the Plan should ideally be re-examined every year and the numbers should correlate with the fiscal budget. The goals of the IT Strategic Plan actually are an amalgamation of both short and long term goals and objectives that have been presented to Dr. Bradley as part of the scope of daily work of Information Technology. Mike noted that the best strategies are flexible strategies.
  g) Peter Lach/Is faculty/staff development included in the plan? Mike/It is included on Page 29, under IT Solution Center & Customer Service Program, Item E, User Training but is not heavily emphasized. Toru Chiba/Now that infrastructure is in place, we should encourage learning of systems. We need more visible training and a clear calendar of the training that is easily viewed. Mike/Good suggestion, we should involve Toru in this process.
  h) Tracie/The Plan looks great!

- Mike will send a PDF copy of the Plan along with the notes to everyone on the Committee. He reminded them to email their comments and/or suggestions to him.

- The meeting adjourned at 1:30 pm.

4. Please attach documentation (e. g., inventories, equipment replacement plans, etc.) to this report.

The IT department has a strategic plan for IT. The Plan is available either by clicking here or at

the end of this section (for the printed version).

Standard V-1. Each student must have adequate and reasonable access to the systems needed for each course.

B. Student Access

State the hours the various facilities are open. State whether students have access from dormitories or off-campus by direct access, modem, etc., and describe this access quantitatively.

Students have access to all services including WebCT, account administration (including billing, scheduling, etc), library, email, and ftp space via a secure login from any location. In addition, students have access to the open wireless connection on campus and can also access computers in the public labs on campus including wonderful new a 24-hour lab in the library and two new labs in the student center that will open Fall 2007 with extended hours (to be announced).

Every residence hall room has a port per pillow, and it is now estimated that between 65% and 80% of the resident students have a personally owned computer plugged into the campus network. In addition to wireless access there are courtesy ports scattered throughout the common areas of the college (student center, library, student lounges, snack bar, etc) that allow students with laptops full network access.

Standard V-2. Documentation for hardware and software must be readily accessible to faculty and students.

C. Documentation

Describe documentation for hardware and software systems available to students and faculty in the information systems program. Explain how students and faculty have adequate and timely access to the documentation.

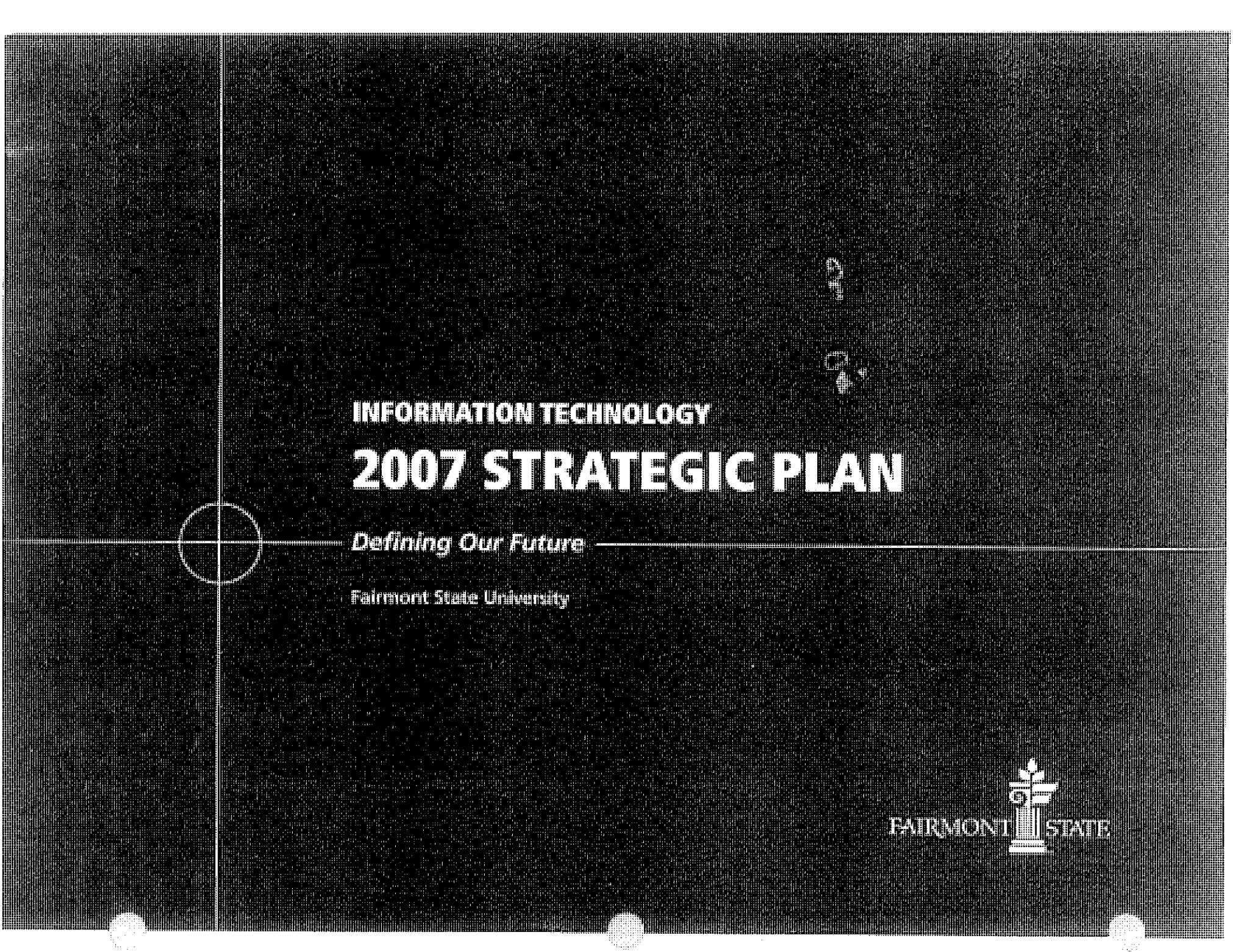
Documentation is available online for the majority of software and hardware systems in place at the University; however, paper copies are also available from the Call Center Help Desk by calling or emailing 24 hours a day.

Standard V-3. All faculty members must have access to adequate computing facilities for class preparation and for scholarly activities.

D. Faculty Access

Describe the computing facilities available to faculty for class preparation and for scholarly activities. Include specifics regarding resources in faculty offices.

The lab in Bryant Place is staffed by a part-time faculty equivalent (funded through the CTC). Although the lab is primarily used for the freshman application course (self-paced), any student may seek help, space and time providing. The lab is open at least 5 hours per day with hours varying by day of the week to ensure that all students are able to access the lab (hours are posted online). In addition, over the past year, one faculty and some advanced students have held daily open lab sessions for one hour per day specifically geared to help students in the IS programming courses.


INFORMATION TECHNOLOGY
2007 STRATEGIC PLAN
Defining Our Future
Fairmont State University
FAIRMONT STATE

"Advances in computer technology and the Internet have changed the way America works, learns and communicates." Bill Clinton, 42nd President of the United States

Fairmont State University Information Technology Strategic Plan

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I. Message from the Vice President & CIO

The use of information technology (IT) in academe has become ubiquitous and is a major competitive advantage for those institutions that are able to harness technology in pursuit of their overall mission as educational institutions. Technology is rapidly transforming all aspects of human life, including the way that we work, study, and play. It is important for Fairmont State to leverage these trends, and to create a secure and stable teaching & learning environment that both utilizes the power of IT and helps transform it in meaningful ways to our students, faculty, and staff.

This document will explore the many ways in which Fairmont State is pursuing IT competitive advantage for the betterment of the institution, the region, and the state. The range of technologies in play cover everything from simple e-mail and voice mail messaging to integrated and sophisticated automated systems that simplify the operational aspects of managing an institution while amplifying the effectiveness and reach of our teaching and learning mission to the citizens of the State of West Virginia, and beyond.

One of the key factors to success is a tight alignment between the IT strategic mission and the mission of the institution as a whole. Oftentimes, technology initiatives can run ahead on their own, with little or no tie in to the overall business of the institution within which it resides. The job of the Vice President & CIO is to ensure that all technology initiatives are undertaken in support of the business and educational goals of the institution that we serve. It is critical that the IT mission succeed, since the academic landscape has become considerably more competitive over the past decade. Simply put, institutions that do not keep pace with change and technology are falling by the wayside, while those that embrace these changes are soaring toward ever greater achievements, financial stability, and a seat at the table of successful 21st century organizations.

We have a particular challenge here at Fairmont State in that our IT mission must provide services to both a community college (Pierpont Community & Technical College, a division of Fairmont State University), and the university as a whole (Fairmont State University). We are fortunate in that we have collaborative leadership in place that will streamline and simplify this process. Our expectations for the future include will further enhance the service and opportunities provided to our students.

I am excited about the wide range of projects and challenges that this plan addresses, and I am looking forward to a successful implementation of the primary goals contained in the plan. The quality of our institutional leadership, and of our students, faculty, and staff are the most important key success factor towards attainment of these ambitious, yet essential, goals.

Mike Bestul
Vice President & Chief Information Officer

II. Information Technology Strategic Plan Overview & Executive Summary

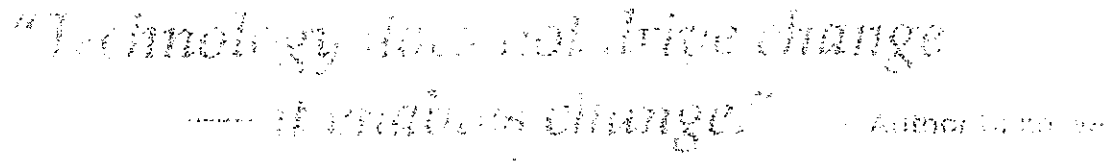
Fairmont State's IT Strategic Plan is a work in progress, and is very much an operational plan as well as an ongoing strategy for positioning the institution for the future.

One of the keys to our success will be how well we as an institution merge the efforts of IT planning with overall institutional planning, so that IT goals and objectives are well aligned with business goals and objectives.

The goals and objectives for IT for FY 2006-2007 (and beyond) are included in this document, and reflect the strategic and operational goals of the IT unit, including time frames for completion (under ideal circumstances) and funding needed to fully implement each of the goals. Where funding cannot yet be estimated, we have included a "TBD" to reflect that uncertainty. Time frames are approximate, and are highly dependent upon (a) pre-requisite project completion and (b) available funding and staffing to accomplish the tasks.

The IT area is currently working towards building a "critical mass" of resources. However, this "critical mass" is itself a dynamic variable that expands as the breadth and depth of our project responsibilities and system implementations expand. Therefore, it is essential for the institution to continually monitor IT resource utilization to ensure we meet, and hopefully exceed, the minimum requirements of the institution. Two major areas of concern are the Applications Development (Business Applications) team, and the Networks/Servers/Security team – both of these areas are struggling to keep up with the amount of work that is required of them to meet the institution's goals and objectives for IT. Another area of concern is the overall procurement and operational area of the CIO office, where one staff person is currently responsible for budgeting and procurement across the entire institution regarding IT financial management.

Going forward, we expect to see further movement towards an integrated web portal, single signon facilities, continued expansion of open source products (e.g., Linux, Java, PHP, etc.), cost containment and revenue generation (e.g., grants, charge backs for department-specific services), and maintenance and growth of our stable network infrastructure to position the institution for the next generation of computing. We fully expect the next generation of academic computing to leverage advances in mobile technology so that our future students can have a single device to support voice, data, and applications in the pursuit of their education here at Fairmont State. In addition, we will continue to work with the faculty to identify and implement new teaching and learning technologies in the classroom and in support of our growing distance learning mission.



III. Organizational Structure – Fairmont State IT

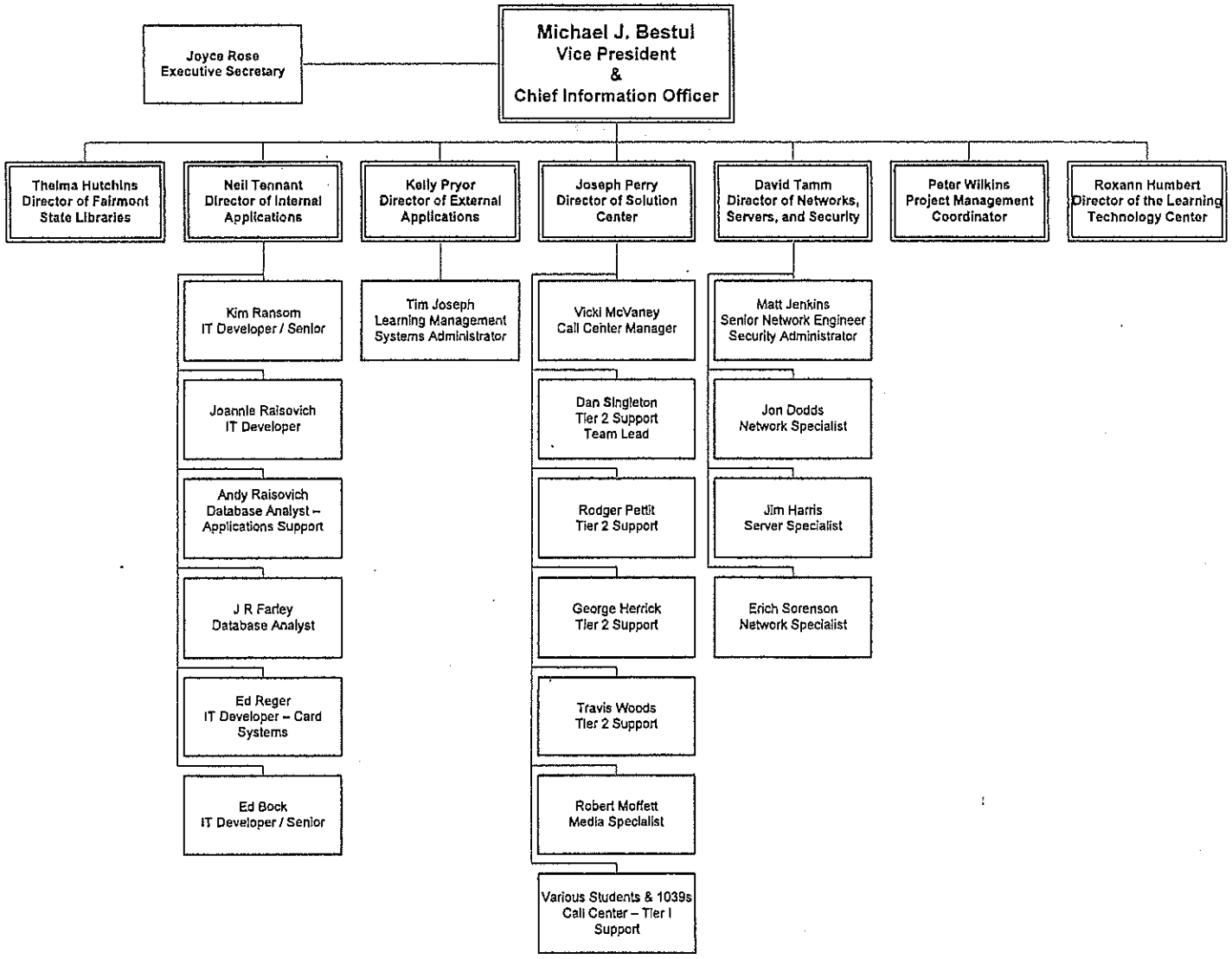
Fairmont State's IT organization is structured across several distinct areas, each managed by a Director, with all Directors reporting to the Vice President & CIO.

- Fairmont State Libraries – encompasses all libraries and library resources available on the main campus in Fairmont, as well as satellite campuses in Clarksburg and outlying areas.
- Internal Applications – business systems, primarily SCT Banner, that support all administrative functions including student services, human resources, finance, management reporting, financial aid, and student registration.
- External Applications – e-learning applications, primarily WebCT/VISTA, and various teaching & learning technologies that either stand alone or are integrated with WebCT/VISTA and the overall e-learning environment.
- Solutions Center – primary end-user support for students/faculty/staff (desktops, labs), as well as providing multi-media and classroom technologies.
- Networks, Servers, and Security – responsible for the management of the IT infrastructure, including all servers, backups, security, network and bandwidth management, connectivity, and telecommunications (voice and data).
- Project Management (Project Management Office / PMO) – responsible for coordinating activities across multiple areas of the institution to achieve efficiency of execution in IT planning and project deliverables.
- Learning Technology Center – provides direct support to faculty in leveraging innovation and operational use of e-learning tools & systems in the classroom and in distance learning initiatives.

The organization chart that follows illustrates the reporting lines and various units within Fairmont State IT. (Note that the Library area and the Learning Technology Center have additional employees that are not represented on this organization chart.)

Not all problems have a technological solution, but when they do, that is the most lasting solution.

— Andrew Grove, co-founder, CEO, Chairman of the Board, Intel Corp.



Fairmont State Information Technology Organizational Structure

IV. Fairmont State's IT Vision

Fairmont State's use of IT will place it among the top institutions in its class (medium-sized publicly funded institutions) in terms of providing service to students, fostering the creative / innovative use of teaching & learning technologies, providing service to the community & region, delivering stable IT architectures & systems, and enabling efficient and cost effective business operations.

V. IT Strategic Planning Process / Background

Fairmont State's IT Strategic plan was developed using the following process:

a. establishment of annual goals & objectives by the President of Fairmont State University and the Vice President and CIO
b. SWOT analysis by the IT staff regarding IT's strengths, weaknesses, opportunities and threats
c. identification of strategic themes by the Vice President & CIO
d. using the material in (a), (b), and (c) development of a draft document by the Vice President & CIO
e. sharing of the draft document with the President and President's Cabinet members for initial feedback
f. modification of the document as needed based on feedback in (d) above
g. vetting of the revised draft document with committees of faculty, staff, and students (TBD – in progress)
h. incorporation of any necessary changes based on feedback from faculty, staff, and students (TBD – in progress)
i. preparation of a final plan document
j. sharing of the final plan document with the President, the President's Cabinet, and the faculty, staff, and students of Fairmont State

One of our overriding themes is to tie the IT Strategic Plan, to the extent possible, with the Fairmont State Strategic Plan's seven major goals. The IT plan is designed to support those institutional goals and complement the efforts of the institutional strategy.

"Technology [illegible]"

— [illegible]

VI. IT Strategic Themes

In this section of the IT Strategic Plan document, we will explore various strategic themes that we believe will be important business and/or decision drivers for Fairmont State for at least the next five years. With each theme, we also summarize the tactical approaches we will employ to support them and align with the Fairmont State Institutional Strategic Plan.

Theme 1 – Convergence

Technology convergence, simply put, means the ability of multiple technologies and devices to perform similar functions, in particular around connectivity and messaging. For example, cell phones that can read email, iPods that can provide both audio and video while obtaining this information from the Internet, and systems that provide integration between a variety of handheld, desktop, and network devices. Essentially, we are seeing a growing synergy between voice, data, video, and the network where all devices communicate using standardized protocols. Fairmont State expects that convergence will be a major driver for educational technology over the next five years as we begin to explore exciting ways to deliver content and education beyond the web browser or traditional classroom settings that are commonplace today.

TACTICAL APPROACHES...

Infrastructure

- Fairmont State's infrastructure approach to convergence includes ramping up the campus wireless environment, improving and stabilizing the telecommunications infrastructure, implementation of Gigabit data communications, and the implementation of single signon/web portal technologies. We are also incorporating improvements in central phone/telecommunications management systems, and print management improvements as part of our convergence strategy.

E-Learning

- Fairmont State's e-learning support for convergence includes continuing growth and stabilization of the WebCT/Vista and related e-learning software environments, addition of streaming server capabilities, incorporation of podcasting (at least as a pilot), and implementation of selective synchronous e-learning solutions.

Solution Center

- Fairmont State's IT Solution Center supports the convergence strategic theme through expanding the use of classroom technology, and implementation of a "thin client" test facility.

Theme 2 – Reliability

As the institution moves into a paradigm where education can be (and is expected to be) available on a continuous basis, the issue of reliability of systems becomes paramount. 24x7 operations will be required to support the institution of tomorrow, and we are close to the point even today where this type of continuous operation/near 100% reliability is not only desired, but essential to the ability of the institution to deliver its mission. IT is exploring ways to create additional redundancy in its server and network

systems, such that no system truly goes "down" but rather shifts over to a parallel set of hardware and software while the problem with the primary system is addressed behind the scenes, and then reinserted into the redundancy configuration. Another major component of reliability is the overall network topology on campus – Fairmont State IT is developing plans to dual-home every building and node so that a physical interruption of service no longer brings down the entire facility, but simply shifts over to a redundant and pre-configured connection.

TACTICAL APPROACHES...

Infrastructure

- Reliability will be supported by preparation of an IT disaster recovery plan, implementation of central phone management, and overall server consolidation in the data center.

E-Learning

- Reliability will be supported in e-learning by continuing to stabilize the WebCT/Vista system, and the implementation of 24x7 help desk support.

Banner & Business Applications

- Reliability is supported by the Banner & Business Applications area by maintaining current versions and releases of Banner, implementation of Banner HR/Payroll, implementation of the data cleanup projects to provide more accurate reporting, and addressing systematically a backlog of functional improvements / project requests across all the areas of the institution that rely on Banner for information and operations.

Solution Center

- Reliability is supported by the IT Solution Center through its management of labs and lab utilization, management of desktop/ workstation replacements, expansion of the IT Help Desk hours, and by conducting IT staff development and training.

Theme 3 – Performance

One of the highest expectations of our students, faculty, and staff (even at the present time) is that the IT systems in place at Fairmont State perform at an adequate, if not stellar, response time. In order to ensure that our systems have high performance, it will be necessary to continuously upgrade equipment, in particular networks and servers, to provide the type of service that our students, faculty, and staff have come to expect.

TACTICAL APPROACHES...

Infrastructure

- Performance issues will be addressed in the infrastructure area through the new data center buildout, improvements to the overall telecommunications infrastructure, implementation of Gigabit data communications, and server consolidation.

E-Learning
- Performance issues will be addressed in the e-learning area through continued stabilization and enhancement of the WebCT/ Vista environment.

Banner & Business Applications
- Performance issues will be addressed in the Banner & Business Applications area by maintaining Banner versions and interfaces, implementation of the data cleanup projects, and addressing the functional project requests for operational improvements across the institution.

Solution Center
- Performance issues will be addressed by the IT Solution Center through its management of labs & lab utilization, management of desktop/workstation replacements, and implementation of a "thin client" test facility.

Theme 4 – Identity Management

A huge challenge for institutions in the 21st century is the management and coordination of information between multiple systems that are driven from a single user ID/account. We expect that Fairmont State will expend a great deal of effort on the problem of identity management – of knowing who someone is, why they need access to a system, what they are doing or need to do, and where they are located in terms of network and physical location. The problem is magnified by people who have dual roles – for example, a student who is also an employee. Identity management addresses access and security issues for students, faculty, staff, and other constituents, so that easy access to authorized systems is possible, while at the same time access is tightly controlled to those systems and databases that an individual is not and should not be authorized to view or update.

TACTICAL APPROACHES...

Infrastructure
- Identity Management will be supported by the implementation of single sign-on / web portal projects, and the implementation of print management improvements.

Banner & Business Applications
- Identity management in the Banner & Business Applications area will be supported by the implementation of Banner HR/Payroll.

Theme 5 – Systems Integration/Data Warehouse

As Fairmont State implements more systems around the Banner Enterprise Resource Planning (ERP) system, the need to integrate those systems with the Banner database is growing. Fairmont State will need to make careful decisions about which systems need to be integrated (since the costs of integration are high), and which systems can stand alone with little or no impact to the institution. In addition, we expect that the data gathered in Banner and reporting systems will become more and more valuable to the institution for management decision making and planning – therefore, we expect that the demand for implementation of a data warehouse that provides easy-to-use views and reporting mechanisms will increase.

TACTICAL APPROACHES...

Infrastructure
- Systems Integration / Data Warehousing will be supported by the infrastructure area through the data center buildout, the implementation of single signon / web portal, and the implementation of print management.

E-Learning
- Systems Integration / Data Warehousing will be supported in the e-learning area by continued support and stabilization of WebCT/Vista.

Banner & Business Applications
- Systems Integration / Data Warehousing will be supported by the Banner & Business Applications area through maintenance of Banner versions & releases, maintenance of Banner interfaces, implementation of a management reporting facility, implementation of Banner HR/Payroll, implementation of the data cleanup projects, and operational improvements across the institution.

Theme 6 – Cost Containment / Revenue Generation / Institutional Efficiency

It is no secret that budgets are tight in higher education these days. Fairmont State's IT unit has a special challenge in attempting to control costs in an area where costs have been traditionally high – nothing in IT is really ever"inexpensive". Therefore, the institution will need to take active measures to ensure that scarce dollars are being spent in the right areas, that wasteful and inefficient systems and business processes are eliminated or reduced, and that (most importantly) opportunities for revenue generation are fully explored. Revenue generation opportunities include everything from chargebacks (e.g., pay for print) to obtaining grant funding for special projects to creating revenue streams for services provided to other (external) entities and organizations. Institutional efficiency will be the end result of cost containment and revenue generation activities, where business processes are redesigned or replaced to eliminate wasteful activities, while enhancing those activities that either increase revenue or deliver additional services to our students, faculty, and staff.

TACTICAL APPROACHES...

Infrastructure
- Cost Containment / Revenue Generation / Institutional Efficiency will be supported by the infrastructure area of IT through implementation of a campus wireless solution, the data center buildout, improvements to the telecommunications infrastructure, preparation of an IT disaster recovery plan, implementation of central phone management, implementation of centralized print management, and server consolidation in the data center.

E-Learning
- E-Learning will support this strategic theme through implementation of a 24x7 help desk.

Banner & Business Applications
- The Banner & Business Applications area will support cost containment/revenue generation/efficiency strategies through maintenance of Banner for business operations, maintenance of Banner interfaces, implementation of a management reporting

facility, implementation of Banner HR/Payroll, implementation of data cleanup projects, and addressing operational improvements across the institution.

Solution Center
• The IT Solution Center will support cost containment/revenue generation/efficiency initiatives through management of labs & lab utilization, management of desktop/workstation replacements, expansion of the IT Help Desk hours of operation, conducting user and IT staff training/development, and implementation of a "thin client" test facility.

Theme 7 – Security

IT security has become job number one for most IT shops in both corporate and academic settings. Within the recent past, Fairmont State has experienced the fallout from inadequate security, and has taken significant steps to mitigate problems of this nature from recurring through a complete redesign of the Fairmont State network, email systems, directory, and overall security model in place. We expect security to remain a difficult and challenging issue for the foreseeable future. It will be essential to continue funding and bolstering the security systems and overall security model at Fairmont State in order to stay "one step ahead of the bad guys." At this time, all servers and desktops supported by Fairmont State IT are fully protected, both through their location in the network, access controls placed on systems, and strong anti-virus and anti-spyware facilities in place to prevent intrusion and other security breaches.

TACTICAL APPROACHES...

Infrastructure
• The infrastructure area of IT supports the security strategic theme through the data center buildout, improvements to Fairmont State's telecommunications infrastructure, preparation of an IT disaster recovery plan, implementation of centralized print management, and server consolidation in the data center.

Solution Center
• The IT Solution Center supports the security strategic theme through providing end-user training and IT staff development & training.

Theme 8 – Teaching & Learning

Obviously, the mission of the institution is to provide high quality teaching & learning experiences for our students. This strategic plan document assumes that one of IT's primary support roles is to bolster and enhance the teaching and learning mission of the institution, by providing reliable and highly available systems, by exploring new technologies for classroom and distance/e-learning education, and through rapid dissemination of information about tools, features, and capabilities of new systems that are put in place to increase productivity or enhance the overall student experience. We expect that new technologies based on multi-media and convergence will become commonplace, and that wireless communications will become ubiquitous – IT must be prepared both technically and financially to take on this challenge so that we do not miss an opportunity to enhance the educational experience for all of our students and constituents. In addition, we expect to be able to bolster the research capabilities of the

institution through our partnerships with the Global Grid Exchange (G2EX), which also can enhance the computer science program by preparing students (and graduates) who understand parallelization of code and overall grid computing concepts, as well as contribute to the overall West Virginia economy through our contributions to the grid.

TACTICAL APPROACHES...

Infrastructure

- The teaching & learning strategic theme is supported by the infrastructure area through its implementation of a campus wireless solution, the new data center buildout, improvements to the campus telecommunications infrastructure, and the implementation of Gigabit data communications across the institution.

E-Learning

- E-learning supports the teaching & learning strategy through its support for WebCT/Vista and ancillary e-learning software, the implementation of 24x7 help desk support, the implementation of streaming server capabilities for our e-learning courses, piloting the use of podcasting, and implementation of selective synchronous e-learning solutions.

Solution Center

- The IT Solution Center supports the teaching & learning strategic theme through its management of labs & lab utilization, the expansion of the use of classroom technology, management of desktop/workstation replacements, expansion of IT help desk hours, and by conducting end-user and IT staff development / training.

Theme 9 – Customer Service and Student Support

The self-service and ease-of-use of services such as Amazon.com, etc. have become part of the expectations of incoming students and their parents. Therefore, Fairmont State must increase its efforts in the area of customer service, easy-to-use self-help web sites, and a high availability of support (e.g., a 24x7 help desk, in particular for distance learners and web-based learning). Online registration, online advising, and online degree audit must become part of our overall systems architecture.

TACTICAL APPROACHES...

Infrastructure

- Customer service and student support is facilitated by the infrastructure area through its implementation of a campus wireless solution, the new data center buildout, improvements in the campus telecommunications infrastructure, development of single signon/web portal systems, and the implementation of centralized phone and print management.

E-Learning

- Customer service and student support are addressed in the e-learning area through implementation of a 24x7 help desk support service.

Banner & Business Applications

- Customer service and student support are addressed in the Banner & Business Applications area by continuing support for

Banner & current versions, maintenance of Banner interfaces for business operations, and by implementing the data cleanup project results so that student information can be delivered more accurately and timely (on demand) to our student body.

Solution Center
- Customer service and student support are addressed in the IT Solutions Center through management of labs & lab utilization, expansion of the IT help desk hours of operation, and by conducting effective end-user training on all systems and services relevant to students and faculty/staff/administrator end-users.

Theme 10 – Knowledge Management and Institutional Research

Knowledge management is the ability of an institution to record, retain, and access critical information regarding delivery of services, answering questions about budgets & finance, or other pertinent management reporting needs. Fairmont State's IT unit will be engaged in efforts to create an overall "learning organization" that leverages knowledge management and systems to support the concept, while delivering greatly improved services to all of our constituents – from the President requesting a special report on finances, to the student who wants to know about trends in occupations that are related to Fairmont State educational programs. In addition, we expect that Institutional Research (IR) activities will be significantly enhanced by tapping into the overall concept of knowledge management, leveraging the core data/data warehouse systems driven from Banner, and through improved toolsets available to prepare complex analyses of Fairmont State's performance and environmental scans.

TACTICAL APPROACHES...

Infrastructure
- Knowledge management and institutional research are supported by the infrastructure area through the new data center buildout.

Banner & Business Applications
- Knowledge management and institutional research are supported by the Banner & Business Applications area through continued maintenance of Banner and version upgrades, maintenance of Banner interfaces and business operations, implementation of a management reporting facility, implementation of Banner HR/Payroll, implementation of data cleanup project results, and the addressing of a variety of functional requests/operational improvements across the institution.

"The goal is to transform data into information and information into insight"

-- Carly Fiorina, Executive [illegible] of Hewlett-Packard Co. in 1999

VII. Alignment with Fairmont State Strategic Goals (from the Fairmont State Strategic Plan)

A critical component of Fairmont State's IT Strategic Plan is its alignment of IT Programs with the strategic goals from the 2006-2011 Fairmont State Strategic Plan. The following sections illustrate how Fairmont State's specific IT strategies are aligned with Fairmont State's seven overarching strategic goals.

Goal 1: Empower faculty and students to achieve high levels of teaching and learning.

1. Support teaching and learning as the central focus of the institution.
2. Maximize facilities (virtual and physical) for effective teaching and learning.
3. Support learning through a fully outcomes-based curriculum.
4. Integrate the development of the following liberal education abilities across the college experience: communication, critical analysis, problem solving, decision making, social interaction, global perspective, effective citizenship, and aesthetic engagement.

IT PROGRAM IMPLICATIONS...

Infrastructure – Ensure reliable systems so that teaching & learning can be facilitated.

E-Learning – Ensure availability of leading edge classroom technology.

Banner – Ensure reliable student records, grade reporting, and registration/financial aid operations.

Solution Center – Provide excellent customer service to all students and faculty in support of our academic mission.

Goal 2: Cultivate and strengthen the educational, economic, and cultural well-being of our region.

1. Improve accessibility and increase communication.
2. Foster quality community partnerships.
3. Support economic growth.
4. Expand community outreach activities.
5. Enhance and capitalize upon the intellectual and cultural environment of the region.

IT PROGRAM IMPLICATIONS...

Infrastructure – Provide state-of-the-art telecommunications systems and enhanced connectivity between the institution and its partners.

E-Learning – Provide leading edge e-learning and distance learning facilities to support the regional mission of the institution.

Solution Center – Provide excellent customer service to all of our constituents, and expand our participation in regional technology initiatives such as the Global Grid Exchange (G2X).

Goal 3: Expand and promote community education.

1. Establish a central contact for community education and outreach programs.
2. Identify new offerings to meet community needs and interests.
3. Support community education providers.
4. Increase participation in community education throughout our service region.
5. Institute a regular rotation of community education offerings.

IT PROGRAM IMPLICATIONS...

Infrastructure – Provide a stable IT network and infrastructure for supporting community education initiatives.

E-Learning – Provide leading edge e-learning and distance learning facilities to support the community education program.

Banner – Provide reliable and accurate student and billing records to track progress and enable the community education program to grow.

Solution Center – Provide excellent IT customer service to participants in the community education program.

Goal 4: Develop select graduate programs with a focus on regional needs.

1. Increase investment in graduate education.
2. Ensure meaningful graduate educational experiences.
3. Implement best practices in graduate support services.
4. Improve services to working adult graduate students.
5. Expand graduate education opportunities.

IT PROGRAM IMPLICATIONS...

E-Learning – Provide a stable and reliable e-learning platform and other classroom technologies to support a top quality graduate program, with capabilities of reaching the entire region.

Banner – Provide reliable and accurate student records, services, registration, and financial aid functionality to support a top quality graduate program.

Solution Center – Provide excellent IT customer service for all graduate program constituents.

Goal 5: Create a student life environment that enhances participation in campus events.

1. Implement a comprehensive communication plan to publicize campus events.
2. Expand and diversify student authority and responsibility for programming and delivery of co-curricular events.
3. Develop expectations and incentives for student, faculty, and staff participation in co-curricular events.

IT PROGRAM IMPLICATIONS...

Infrastructure – Provide a stable and reliable network infrastructure so that campus events can take place smoothly and without service interruptions.

E-Learning – Provide e-learning and classroom technologies to support the teaching and learning aspect of student life.

Solution Center – Provide excellent IT customer service and support for all campus events.

Goal 6: Provide a comprehensive, integrated approach to the First Year Experience that encourages student success.

1. Communicate academic and co-curricular expectations in every contact with first-year students
2. Improve the availability of student services.
3. Align efforts of Student Affairs and Academic Affairs in support of first-year students.
4. Create a campus environment that fosters student development during the first year.
5. Implement these action steps via a first-year team.

IT PROGRAM IMPLICATIONS...

E-Learning – Provide a stable and reliable e-learning platform that encourages first-year students to expand their horizons and actively engage in learning.

Banner – Provide accurate and reliable student information, services, registration, and financial aid functionality.

Solution Center – Provide excellent IT customer service in support of the first-year experience for incoming students and faculty/staff engaged with them.

Goal 7: Develop, retain, and recruit high-quality people who contribute to a satisfying & productive work environment.

1. Determine the level of professional satisfaction, and identify and address significant concerns.
2. Increase the sense of community and shared mission among employees.
3. Develop policies that enable job flexibility.
4. Expand opportunities for professional development and training.
5. Increase productivity through effective use of technology.

IT PROGRAM IMPLICATIONS...

Infrastructure – Provide a reliable and secure network to support the work and activities that our institutional staff are tasked to do.

E-Learning – Provide e-learning and other classroom technologies to enhance the experience of our workforce in training and other professional development events.

Banner – Provide accurate and reliable employee and financial information so that employees and departmental managers can access relevant information related to their employment easily and seamlessly.

Solution Center – Provide excellent IT customer service to all faculty/staff/students to help foster a satisfying and productive work environment.

VIII. Critical Success Factors

We believe that the following factors are critical to ensuring the success of the IT Strategic Plan:

1. Active Leadership – Provide a clear governance structure for dialogue, project review, cooperation and collaboration, and rapid decision-making among the senior stakeholders of the institution. The Project Management Office (PMO) is central to the further development of this governance model, and our expectations are that projects will move forward with greater understanding of the challenges, benefits, and costs resulting in greater value to the institution.

2. Reliable and Secure Infrastructure – Fairmont State IT must be able to create, maintain, and support a reliable and secure technology infrastructure as a foundational requirement to delivering successful projects that depend upon that infrastructure. This includes everything from the data center to the help desk, coupled with secure network topologies and reliable server architectures to enable Fairmont State to operate continuously (i.e., without significant interruptions caused by failure of technology).

3. Universal and Seamless Access – Create and implement the necessary technologies to provide access to Fairmont State's technology resources anytime/anyplace, and through a single access point of authentication. Users should not be forced to go through multiple logons to access services – instead access through a portal that both controls and protects intellectual property while providing easy access for authorized users is our goal.

4. Empowered Educational Community & Region – Ensure that both traditional and virtual educational communities & environments are supported and fostered, such that all Fairmont State constituents will have a stake in the success of IT projects, and will directly benefit from the implementation of new technologies in the course of their daily activities/job duties/educational progress.

"Technology is just a tool. In terms of getting the students working together and motivating them, the teacher is most important."

-- Bill Gates, entrepreneur & founder of Microsoft Co.

The critical success factors are interdependent, in that each of them has an influence on the others. Coupled with actions to accentuate our Strengths, reduce our Weaknesses, leverage apparent Opportunities, and mitigate Threats identified by the organization, they are also foundational, and can build upon one another. Active leadership, for example, coupled with increased training and development of staff will help provide a reliable and secure infrastructure. In turn, this will provide for universal and seamless access, and ultimately result in better service to our customers and an empowered educational community and region.

ORGANIZATIONAL STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS

Strengths:

- Skilled Staff
- Reliable Systems
- Standard Technology Platforms
- Flexible/Responsive
- Customer Service

Weaknesses:

- Small Staff Contingent
- Communications with Stakeholders
- Training & Development
- Physical Space

Opportunities:

- Self-Service Approaches
- Hosting Services
- Growing Enrollments
- New Data Center

Threats:

- Budget Limitations
- Leadership Change
- Vendor Mergers
- Competition for Resources
- Staff Turnover

"As a general rule, the most successful man in life is the man who has the best information."

– Benjamin [illegible]

IX. How Fairmont State Achieves the IT Vision
Strategic Goals & Imperatives – FY 2006-2007

PROGRAM-LEVEL RESOURCE SUMMARY

	EXPENSE ($000)				
	1Q07	2Q07	3Q07	4Q07	HEADCOUNT
INFRASTRUCTURE	$180	$110	$ 90	$ 80	5
E-LEARNING	$ 30	$ 25	$ 35	$ 20	2
BANNER	$ 25	$ 85	$ 75	$ 80	7
SOLUTION CENTER	$145	$195	$210	$185	7
OFFICE OF CIO	$ 45	$ 35	$35	$ 25	3

When we refer to "Quarters" in this document, we are referring to FY Quarters, where end of 1st Quarter would correspond to September 30, 2006, etc.

Each fiscal year, Fairmont State IT will update the strategic plan with additional information, including new strategic goals & imperatives for the upcoming fiscal year. While there are many projects that will be addressed outside of these strategic initiatives, the following represent the basic goals and objectives for Fairmont State IT for the upcoming fiscal year.

1. Networks & Overall Infrastructure Program - Continue to make necessary and strategic improvements to Fairmont State's overall telecommunications, server, and security infrastructure. Project objectives follow:

a. **Wireless campus implementation** - Continue to deploy wireless capabilities across campus, with a goal of having the entire campus covered by the end of FY 2006-2007. Leverage arrangements with NextG for revenue capture as well as deployment of additional wireless capabilities. Identify a cost-recovery / security schema for secure logon and for assessing non-Fairmont users who access our Internet connection and other resources. **Success measures:** Wireless facilities deployed in all major traffic and usage areas of the central campus, including Library, Falcon Center, and common areas. **Time frame:** Campus-wide wireless access implemented, end of 3rd Quarter.1 **Funding required:** $50,000 - $150,000

b. **Data center buildout** - Finalize plans, and generate bid specifications for carrying out the build out of the Fairmont State IT Data Center. Plans may contain short-term and long-term options at various funding levels. The goal is to have a data center that can support all of our existing needs reliably and with high availability, as well as expand to accommodate future needs (e.g., expanded hosting, new services, etc.). **Success measures:** Agreed upon design and construction plans; publication of bid requests; selection of vendor; contract award; construction completion and occupancy. **Time frame:** Completion of significant stage/improvements in place by end of 4th Quarter, some activities may extend into subsequent fiscal periods (e.g., full buildout - we anticipate only Phase I activities to be addressed this budget year). **Funding Required:** $250,000 - $1,500,000

c. **Telecommunications Infrastructure Management** - Continue to secure, plan for, and design appropriate telecommunications architectures and topologies to ensure that all facilities/buildings within the Fairmont State domain (including remote sites) are kept online during construction projects. We plan to create a "mesh" network that has at least two runs on separate physical paths to every building or touch point in the network, including diverse routes to the outside. **Success measures:** Tracking and reporting of network outages against "zero defects" preventive actions goal. **Time frame:** Ongoing activity on general infrastructure management, network design and implementation activities will extend into next budget year as we learn more about what is needed for full implementation of redundancy. **Funding Required:** $100,000 - $300,000

d. **Gigabit Implementation** - Leverage the initial investment provided by the INBRE grant to deliver gigabit data communications to Hunt Haught Hall as well as other parts of the institution that could benefit from this improved bandwidth/speed. **Success measures:** Gigabit data communications in place and operational for researchers desktops in Hunt Haught Hall. **Time frame:** Complete by end of 1st Quarter. **Funding Required:** $50,000 - $150,000

e. **Single Sign-on / Web Portal Implementation** - Explore software and products (e.g., Luminis) to implement a single signon facility to enable authorized Fairmont State users to access all IT resources through a single entry point or web portal. Leverage the design capabilities of the institution's web design team to deliver a robust and operational web portal to support faculty/staff/students across the institution. **Success measures:** Single signon services implemented to simplify user navigation of multiple information systems and logons. Significant progress on implementation of a campus-wide internal web portal. **Time frame:** For completion TBD, we anticipate major project planning and activities

to be under way by end of 2nd Quarter. **Funding Required:** $250,000 - $750,000

f. **Disaster Recovery Plan** - Identify the key components of an effective disaster recovery plan for Fairmont State's data center, including definition of a "disaster," and acceptable timeframes for recovery from different levels of disaster. Examine best practices from Educause and other peer institutions. Prepare a disaster recovery plan based upon the criteria and assumptions developed in the analysis stage. **Success measures:** Definition of scope and requirements, publication and dissemination of plan, and execution of D/R test. **Time frame:** Completion by end of 4th Quarter. **Funding Required:** $25,000 - $50,000

g. **Phone Consolidation & Cleanup** - Provide the university with one centralized phone management and voice mail system. Provide a voice solution that lets FSU grow as the technology grows. Provide the university a way to create monthly reports based on actual usage rather than the current method of applying a percentage of ones per department. **Success measures:** Centralized phone management and voice mail system in place and operational. Departmental billing modifications made to support usage based billing. **Time frame:** Completion by end of 3rd or 4th Quarter. **Funding Required:** $100,000 - $250,000

h. **Print Management** - Perform data analysis on print utilization, and identify solutions for ensuring that departmental chargebacks are capturing all data. Implement a UCA-based student pay-for-print solution. **Success measures:** Departmental chargebacks are accurate and inclusive of all print activity, student pay-for-print solution operational at all relevant locations (e.g., library, labs). **Time frame:** Ongoing activities, with completion of pay-for-print solutions by end of 3rd Quarter, with an initial goal of having student billing in place by end of 1st Quarter. **Funding Required:** $50,000 - $75,000

i. **Server Consolidation** - Migrate remaining production servers (approximately 10) from the old domain to the new domain. This will require rebuilding services on new hardware in the new domain in order to address security requirements and enhance service levels. **Success measures:** All servers and respective services are relocated in the new domain and operational. **Time frame:** Completion by end of 4th Quarter. **Funding Required:** $10,000 - $50,000

2. **E-Learning Program** - Continue to expand and grow the e-learning program at Fairmont State. Project objectives follow:

a. **WebCT/Vista Support** - Continue to provide support for WebCT/Vista as well as improvements in the efficiency of the implementation through clustering, tuning of the application, and appropriate growth planning. **Success measures:** Significant improvements in Vista operations and ease of use, significant decrease in number of faculty issues/usage issues related to the technology platform. **Time frame:** This effort is ongoing, and will extend into multiple budget years. **Funding Required:** $100,000 annually

b. **Ancillary software and services implementation** - Explore, in conjunction with the Learning Technologies group, other software and products we can implement to strengthen the use of e-learning at Fairmont State. For example, we may want to implement "Turn It In" software, which helps check against plagiarism. **Success measures:** Identification of, and significant progress towards implementation of new add-on e-learning products that enhance Fairmont State's distance learning delivery systems and tool set. **Time frame:** Technical implementation of "Turn It In" complete by 1st Quarter, with ongoing activities for support and investigation/ expansion of new product offerings into subsequent budget years. **Funding Required:** $50,000 annually

c. **24x7 Help Desk Support** - Explore and contract with appropriate resources to expand our front-line help desk coverage for

e-learning programs to a full 24x7 program. **Success measures:** Identification of and negotiations with a third-party provider or development of a plan for internal support of 24x7 e-learning help desk services. **Time frame:** Completion of initial stages, possible setup of contractual arrangements with service provider by end of 2nd Quarter, possible piloting of services by end of 1st Quarter. **Funding Required:** staffing resources, approximately $75,000 annually

d. **Streaming Server** - Purchase, set-up and deliver an enterprise streaming server to increase the type of content that can be included in online and enhanced classes. A streaming server would give Fine Arts and Language and Literature the capability to deploy several projects such as a language lab, sign-language video clip repository, and virtual music lessons. **Success measures:** Streaming Server is operational and content is created and made available to students. **Time frame:** Completion by end of 2nd Quarter. **Funding Required:** $25,000 annually

e. **PodCasting** - Explore products and services for pod-casting, provide a mechanism for faculty to create and deliver podcasts, train faculty on how to create podcasts. Once deployed, podcasting could also be made available to non-academic units. **Success measures:** Hardware and software necessary to create podcasts is purchased, faculty have been trained on how to create podcasts and podcasts are used in online and enhanced classes. **Time frame:** Completion by end of 4th Quarter, with ongoing activities extending into subsequent budget years. **Funding Required:** TBD

f. **Synchronous Solution** - Explore and implement a Vista powerlink product, such as Horizon/Wimba, that can be used to provide faculty with an audio/video synchronous solution for online and enhanced classes. **Success measures:** Synchronous solution is operational and in use in online classes. **Time frame:** Completion of major activities by end of 3rd Quarter, with ongoing support activities extending into subsequent budget years. **Funding Required:** TBD

3. **Banner Improvements and Applications Development Program** - Continue to build upon Banner and related applications addressing customer priorities and new initiatives. Project objectives follow:

a. **Implement Banner CAPP Software** - Work closely with Student Services to pilot, test, and deploy the CAPP software product in production across our institution. **Success measures:** Software and server are operational, and integrated with other Banner processes. **Time frame:** Completion by end of 4th Quarter. **Funding Required:** $150,000 - $250,000

b. **Maintain Banner and Interfaces for Business Operations** - Ensure that Banner is operational and that tuning and upgrades to the software occur on an as-needed basis. Correct bugs and defects as encountered. **Success measures:** Banner is operational and available 99.99% of the time. Bugs and defects are corrected, and upgrades are applied in a reasonable fashion. **Time frame:** Ongoing activities, extending across multiple budget years. **Funding Required:** Additional IT staff (2 positions, at $150,000 annually).

c. **Implement Management Reporting Facility** - Work with all parts of the institution's management team to deliver improved capabilities for management reporting. **Success measures:** This is not implementation of ODS software, but rather leveraging existing data files in a data mart configuration to provide extended and additional ad-hoc reporting and analysis capabilities for end-users, institutional research, and senior management. **Time frame:** Completion by end of 2nd Quarter. **Funding Required:** TBD

d. **Banner HR/Payroll** - Continue working on the implementation of Banner HR/Payroll, as well as a universal approach to addressing issues in HR that may include integration of non-Banner-specific products (e.g., PeopleAdmin). **Success measures:** Payroll running

from Banner, significant progress on other parts of HR projects and priorities. **Time frame:** Completion of payroll portion by end of 2nd Quarter, other activities will be continuing through FY 2006-2007 and into the next budget year. **Funding Required:** TBD

e. **Complete Data Cleanup Project** - Continue working with the Registrar and other staff to complete all data cleanup that was identified as priorities, and as preparation for leveraging the implementation of Banner's CAPP module. **Success measures:** Banner and student data is prepared and scrubbed/converted to appropriate configurations for future use and simplification of data structures. **Time frame:** Completion end of 1st Quarter. **Funding Required:** TBD

f. **Operational Improvements** - Attack the "300 item list" to begin delivering on pent-up demand, as well as manage demand over time. Prioritize items on the list, and implement those deemed most critical to the institution given available staffing and other resources. **Success measures:** Identification and classification of all requests; determination of method for valuation and prioritization; establishment of tracking mechanisms; tracking and reporting on request queues, resource utilization and completion rates. Significant progress on reducing the demand and addressing the concerns and project requests on the task list. **Time frame:** Ongoing activities extending across multiple budget years. **Funding Required:** TBD

4. **IT Solution Center & Customer Service Program** - Continue to build on successes in improvements in customer service, overall desktop management, and support for classroom and lab technologies. Project objectives follow:

a. **Lab Management and Utilization** - Create a plan and implement a strategy for reducing the number of labs on campus, with a goal of consolidation of services in several centralized (and rather large) facilities that support all Fairmont State academic and administrative software. **Success measures:** decrease the number of centrally supported computing facilities on campus resulting in a noticeable cost savings. **Time frame:** Completion by end of 4th Quarter. **Funding Required:** $150,000

b. **Classroom Technology** - Continue to work with Student Services and the Academic Affairs office to identify and implement appropriate learning technologies in all Fairmont State classrooms and teaching facilities. **Success measures:** A noticeable difference in faculty acceptance and utilization of technology in the classroom. **Time frame:** Ongoing activities extending across multiple budget years, with significant improvements logged in FY 2006-2007. **Funding Required:** $50,000 - $100,000 annually

c. **Desktop / Workstation Replacement Program** - Identify funding sources and create a plan for centralized funding and management of a 3-year replacement cycle for all workstations for faculty and staff. A set amount will be allocated per workstation, with the option of going over that amount if the department can provide the differential funding. **Success measures:** Once the project is funded and underway, the development of an "automated" PC update will be in place. The end user will not have to remember their PC is ready for an update. Information Technology will contact the end-user to inform them their new machine has arrived and will deploy the new machine on a specified date. **Time frame:** Completion of plan by end of 2nd Quarter. **Funding Required:** $450,000 - $600,000 annually

d. **Expansion of Help Desk Hours** - Expand the hours of operation of the IT Solution Center Help Desk. The first step will be to secure funding, second step is to hire and train staff. The hours of operation would, ideally, be until 10:00 PM. **Success measures:** Once hours are expanded - help desk utilization and reliability will increase. **Time frame:** New hours in place by end of 2nd Quarter, assuming funding and staff are available. **Funding Required:** additional staffing at $50,000 - $100,000 annually

e. **User Training** - Develop and implement various end-user education programs to increase end-user awareness and capabilities

X. Summary & Conclusion

Fairmont State's IT Strategic Plan represents a bold statement of expectations for where we believe this institution needs to head in terms of expansion of its technology base to support the academic missions of Fairmont State University and Pierpont Community & Technical College into the 21st century. The plan was prepared in conjunction with the administration, faculty, staff, and students of the institution.

Achieving all the goals in this plan will be an ambitious undertaking, and one that is not possible without continuous support from the institution in terms of management, funding, and resource allocation. In addition, the institution must recognize the growing "pie" that represents IT and the need to add resources to the mix in order to sustain the successes that have already been achieved in FY 2005-2006.

One of the keys to our success will be the ability of the institution to assure operational continuity, as measured by 24X7 operation with "six sigma" (99.9999%) uptime – therefore, we are making intensive efforts to plan for disaster, contingencies, and the unexpected in terms of being able to provide business continuity to the institution in the event of a catastrophic event, or emergency of any type. This will include data center operations as well as key communications facilities (email, voice, data transmissions).

Enhancing our security model will continue to be important as we expand our systems and services to a broader constituency. The need to keep data and information private, yet accessible to those who need it or are authorized to see it, will drive our decisions in these areas. With our environment growing in complexity, and threats to security growing in sophistication every day, it is essential that Fairmont State do everything in its power to ensure that our student information and critical financial data is secure and recoverable.

We look forward to the participation and engagement of the entire institution as we turn the IT Strategic Plan from vision and planning into reality. Together, we can truly shape our future – a future that has as its guiding light the interests and superb education of our students as the paramount goal.

The quality of our institutional leadership, and of our students, faculty, and staff are the most important key success factor towards attainment of these ambitious, yet essential, goals. — Mike Bestul, VP & CIO

XI. Appendices

Appendix A – Faculty Advisory Committee Input

VI. Institutional Support and Financial Resources

Intent: The institution's support for the program and the financial resources available to the program are sufficient to provide an environment in which the program can achieve its objectives. Support and resources are sufficient to provide assurance that an accredited program will retain its strength throughout the period of accreditation.

Standard VI-1. Support for faculty must be sufficient to enable the program to attract and retain high-quality faculty capable of supporting the program's objectives.

Standard VI-2. There must be sufficient support and financial resources to allow all faculty members to attend national technical meetings with sufficient frequency to maintain competence as teachers and scholars.

Standard VI-3. There must be support and recognition of scholarly activities.

A. Faculty Stability

1. Evidence of the long-term stability of a program is provided by its ability to both attract and retain high quality faculty. Describe how your program does this. Some topics the description might address are sabbatical and other leave programs, salaries, benefits, teaching loads, support for and recognition of scholarly activity (including financial support for attendance at professional meetings), departmental and institutional ambiance, etc.

The IS program at Fairmont State has had positive success in retaining qualified faculty members. The flexibility and autonomy of the program allow faculty to focus on a chosen area and also to determine what specific activities that they would like to participate in or apply themselves toward. The interaction among faculty is very positive and the relationships among the faculty, staff, and students provides a comfortable and supportive environment. In addition, the merit pay and faculty evaluation system are flexible within boundaries and allow faculty to achieve pay increases by meeting approved personal goals.

2. Give counts of the total number of faculty and the number of resignations, retirements, and new hires for each of the last five years. Indicate whether there are significant problems attracting and retaining faculty, and if so, the causes.

Year	Total Faculty	Resignations	Retirements	New Hires
2000-2001	2	0	0	0
2001-2002	2	0	0	0
2002-2003	2	1	0	1
2003-2004	2	0	0	0
2004-2005	2	0	0	0
2005-2006	3	0	0	1
2006-2007	3	0	0	0

B. Faculty Professional Activities

Summarize the professional activities of your faculty, including attendance at meetings, university and professional honors won by individuals. Only summarize here; details should appear in individual faculty vitas.

The University holds two weeks of professional development workshops each academic year. The IS faculty attend these presentations and workshops and have even conducted sessions. Faculty also attend national and international meetings and present peer reviewed material. Faculty have also been nominated for campus and off-campus awards.

Standard VI-4. There must be office support consistent with the type of program, level of scholarly activity, and needs of the faculty members.

C. Office Support

Describe the level and adequacy of office support. The description should address secretarial support, office equipment, and the total group supported by this equipment and staff.

The IS department is housed within the School of Business. The School of Business has two secretaries that support the efforts of the office and are available to perform activities that support the department. In addition, a part-time faculty supports the IS and CTC IT faculty (6 total). The hours of the part-time faculty are from 8 until 1:30 daily. As the IS/IT and CS faculty relocate to the new Technology Building, additional staff support will be needed.

Standard VI-5. Adequate time must be assigned for the administration of the program.

D. Time for Administration

Describe the adequacy of the time assigned for the administration of the program.

No release, pay, or other compensation is provided to the Coordinator of Information Systems - only the title. Time for administration duties is personal time or taken from other tasks.

Standard VI-6. Upper levels of administration must provide the program with the resources and atmosphere to function effectively with the rest of the institution.

E. Adequacy of Resources

Describe the adequacy of the resources and the atmosphere provided by the upper administration for the program to function effectively with the rest of the institution.

A very collegial relationship exists between the faculty in the Information Systems Department, the School of Business, and the higher administration of the University. The IS Department, the CS Department, and the CTC IT Department will be relocating to the new Engineering Technology Building for the Spring 2008 semester. This provides needed space for the program's existing needs as well as room to grow. When the IS Department has needs, those requests are given to the School of Business for approval. It would be nice if the IS Department had funds allocated directly as that would allow growth and expansion - current requests are generally for items or resources that are required to maintain the program.

F. Leadership

Positive and constructive leadership at the college/school level and within the program's department are especially important to the program's quality. Evaluate this leadership and the interaction between these levels of administration.

The Coordinator of IS has a strong vision for the Department and takes the coordination of the program very seriously. It is under this administration that the program was developed and has become a successful and viable program on campus. The Coordinator has taken a very proactive attitude concerning assessment, program development, advising, and other items that have really improved the program. During monthly meetings, the Coordinator and other faculty have created documentation including a Department Mission, Vision, and Goals; Student Learning Outcomes; common tests and syllabi; and others. The School of Business maintains a positive role and affiliation with the IS Department. Through monthly meetings, the Department learns of administrative concerns discussed at the Deans and Chairs meetings as well as other academic affairs issues.

Standard VI-7. Resources must be provided to acquire and maintain laboratory facilities that meet the needs of the program.

G. Laboratory and Computing Resources

Describe the resources available for the program to acquire and maintain laboratory facilities. Include information on how the institution determines the adequacy of these resources.

As examined in the Technology Infrastructure section, instructional computing equipment as well as the desktops for full-time faculty across the University are funded centrally via

campus technology fees. Machines are on a replacement cycle that is currently 3 to 4 years. When the Department needs to purchase software or hardware outside of the standard lab package, the funds are solicited from the School of Business, the IT Support Services Director, or other available funds (like Perkins funding provided to the CTC). Lab purchases that are departmental are generally split between the IS and CTC IT departments. The IT Strategic Plan is available at the end of the Technology Infrastructure section in the printed self-study or by clicking here. In addition, the Academic Computing Committee is a committee made of one representative from each School that provides input into decision making and also makes recommendations of campus computing improvements.

Standard VI-8. Resources must be provided to support library and related information retrieval facilities that meet the needs of the program.

H. Library Resources

Briefly describe the resources available for the support of the library and related information retrieval facilities. Include information on how the institution determines the adequacy of these resources.

The librarians at Fairmont State consistently fund resources for scholarly research from their budget. The library administratively reports to the CIO who has an excellent understanding of information retrieval facilities and the importance them. The Faculty Senate library committee meets once a month to discuss ways to increase the effectiveness of the library holdings and alternate funding methods as the cost of resources increase and the state funding decreases. Last year the library did not receive an increase in their budget but the President of the University has promised to make the library funding a priority for the next year.

Standard VI-9. There must be evidence of continuity of institutional support and financial resources.

I. Continuity of Institutional Support

Discuss and show evidence of continuity of institutional support for the program in the past, and problems that have existed or are anticipated in this area, if any.

The IS Department has been able to grow since its creation in 1999. Since that time, a new lab has been added for curriculum purposes and one for self-paced courses. In addition, the faculty has increased by 2 members and new facilities are being constructed.

VII. Program Delivery

Intent: There are enough faculty members to cover the curriculum reasonably and to allow an appropriate mix of teaching and scholarly activity.

If different programs have different faculty members, please identify which faculty members are associated with which program(s), and the percentage of time allotted, if they are associated with more than one.

Standard VII-1. There must be enough full-time faculty members with primary commitment to the program to provide continuity and stability.

A. Faculty Size

The purpose of this section is to determine whether you have sufficient faculty to offer courses often enough for students to complete the program in a timely manner.

In Section II you gave the course numbers of courses required for the major which are offered less frequently than once per year, and those allowed for the major but not required, and explained how it is determined when they will be offered. Explain (if applicable) any difficulties you have offering required or optional courses frequently enough, particularly as they might be affected by faculty size.

There are enough faculty to cover the courses at this time if faculty are teaching a full course load. Courses are currently offered at least once a year. As the rotation changes and courses are offered every semester, the number of courses will increase. The only scheduling shortages in the past have been caused by course load reassignment due to grant buyout. The only perceived future problems with faculty assignment could be from the Master's program classes that will be staffed by IS faculty for the Project Management specialization and the potential growth of the program.

B. Faculty with Primary Commitment

1. Indicate here the number of faculty whose primary commitment is to this program, that is, who regularly teach courses in the information systems curriculum: 3 full time and 2 part time faculty. In addition, there is one CTC faculty who teaches networking courses taken by BSIS students.

The purpose of the next questions is to ascertain the continuity and stability provided by these faculty members.

2. Please list below the number of faculty with primary commitment to the program in each academic rank, broken down within rank by tenure status.

	Full	Associate Professor	Assistant Professor	Instructor or	Other

	Professor			Lecturer	Faculty
Tenured	0	0	0	0	0
Untenured	0	0	3*	0	2

*It is anticipated that one faculty will achieve tenure Fall 2007. There are 2 adjunct faculty that have been teaching for multiple semesters for the program.

Standard VII-2. Full-time faculty members must oversee all course work.

Standard VII-3. Full-time faculty members must cover most of the total classroom instruction.

C. Faculty Oversight

Full-time faculty must oversee all information systems course work allowed towards the major. That means that each course must be either taught or coordinated by a full-time faculty member with primary commitment to the program. For those courses with sections not taught by full-time faculty during the past academic year, list the course numbers below and the name of the full-time faculty coordinator. (The past academic year is the academic year immediately prior to the year in which this report is prepared.)

Dept Course #	Full-time Faculty Coordinator
IS 2235	Tracie Dodson
IS 4430	Tracie Dodson
IS 2200	Tracie Dodson/Roger Wilson

Standard VII-4. Faculty members must remain current in the discipline.

Standard VII-5. All full-time faculty members must have sufficient time for scholarly activities and professional development.

D. Scholarly Activities

Describe the means for ensuring that all full-time faculty members have sufficient time for scholarly activities and professional development.

Faculty can buy themselves out of courses to work on grants or other approved funded projects.

Standard VII-6. Advising duties must be a recognized part of faculty members' workloads.

E. Support for Advising

Faculty with large numbers of advisees must be granted released time. Explain your advising system and how the time for these duties is credited.

The advisees are shared among all full-time IS faculty. In addition, due to a faculty shortage, the IS faculty are also advising management majors. Advising is considered service to the institution for merit purposes. There is no course release for advising. IS faculty have approximately 50 advisees each semester.

VIII. Institutional Facilities

Intent: Institutional facilities, including the library, other electronic information retrieval systems, computer networks, classrooms, and offices, are adequate to support the objectives of the program.

Standard VIII-1. The library that serves the information systems program must be adequately staffed with professional librarians and support personnel.

A. Library

1. Library Staffing

Assess the staffing of the library (or libraries) that serves the information systems program. Are there adequate professional librarians and support personnel? Supply documentation if possible.

Fairmont State University has three libraries that may be used by all students, faculty and staff members. The Ruth Ann Musick Library is located on the main campus. The other libraries are at the Caperton Center in Clarksburg and the National Aerospace Education Center (NAEC) at Bridgeport. These libraries actively support the academic programs of the University. Library personnel work closely with faculty and students to develop research skills and to provide a wide range of support services that are designed to enhance the learning experience. The print and electronic resources support the curricular needs of the programs of study offered at FSU, and encourage intellectual and personal growth.

Reference services are provided by six professional librarians, who are available most hours that the library is open. These librarians all have the terminal degree (MLS/MLIS from an ALA-accredited library school) and have experience in college, university, public and school libraries. Their training and continuing professional development includes both traditional librarianship and the ever-changing arena of technology. They have the education and expertise to maintain a very active program of services that both support and supplement the University's wide range of programs and curricula. The librarians provide full-time support for the students and faculty who need assistance in locating information and doing research, are involved in the information literacy program, and handle interlibrary loan services. The development and maintenance of a library website is integral to the provision of resources of all types to the University. Technical services personnel provide support in acquisitions, cataloging, and serials/periodicals, as the library provides access to new materials in all formats from the online catalog. Circulation personnel provide so many services to the campus community including reserve materials, circulation of all types of items including headphones, scientific calculators, and other small equipment. They also deliver materials to faculty offices. The Circulation personnel serve as an information desk for the entire campus and many students, who do not know where to go for help, begin at the library.

Librarians and library staff members are available to provide a variety of services to all

faculty and students. These services include:

- Electronic and print reserves: Professors may place materials on reserve, in either paper format or electronically, in accord with copyright laws. The library has provided Electronic Reserves since 2001, providing a secure way for students to access course readings, etc., online. Print reserves are available at the Circulation Desk all hours that the library is open. The rules governing the circulation of print reserves is determined by the faculty member;
- Interlibrary Loan: The libraries use ILLIAD, from OCLC, as the online interface for students and faculty to obtain documents not owned by Fairmont State University. Via ARIEL and ODDYSSEY, documents may be requested, and when received, may be viewed on a secure site on the Internet for a specific time period. The Libraries transmit and receive requests through Internet access and through the mail. The library absorbs the cost of Interlibrary Loans for both students and faculty.
- Reference Assistance: Librarians are available at the reference desk for over 84 hours a week. They are also available for online chat/instant messaging through AIM, MSN, and Yahoo! A mobile phone allows the librarians to carry the telephone to the stacks, etc., to answer questions about materials, collections, etc.
- Library Instruction and Information Literacy: Librarians offer instructional services to classes throughout the service area of Fairmont State. The instruction sessions may be held in the library's electronic classroom, in the institution's classrooms, or at any remote site. Sessions are tailored to meet the needs and assignments of the faculty member and may include use of the library catalog, accessing and using databases, web site evaluation and analysis, and the use of search engines. Tours are provided upon request. Librarians provide instruction and assistance in the use of components in the Microsoft software suite.
- Other Services: The library staff members provide support to students having problems activating their UCA account, accessing WebCT/Vista, or using email. A number of courtesy services are made available including a local courtesy phone and assistance with copying, printing, and computer problems.

The records to all materials held are available through the libraries' online catalog, MARLO. MARLO is a shared catalog and includes the holdings of Fairmont State University, Glenville State College, the Marion County Public Libraries, and the public schools of Marion County. The new online library system and catalog, from Innovative Interfaces, Inc., was turned on in September, 2006. The catalog is web based and is available at http://marlo.fairmontstate.edu. A major goal of the library staff is to make this catalog the one resource that will take the user not only to the library print and multimedia holdings, but to enhance its capabilities so that it is a resource that links the researcher directly to websites, full text journals and books, and all types of online information.

Library facilities at the main campus have the following hours during regular fall and spring semesters:

Sunday	2 p.m.-midnight
Monday-Thursday	7 a.m.-midnight
Friday	7 a.m.-7 p.m.

Saturday	9 a.m.-6 p.m.

During the last two-three weeks of each semester, the hours are extended until 2 a.m. Summer hours are abbreviated, but the library is available six days a week during summer session. The Caperton and Aerospace libraries' hours are posted on the libraries' website.

The Musick library building was renovated in 2005-2006, adding a lobby and a 24-hour computer lab on the ground floor, a student lounge and individual study rooms on first floor, and an electronic classroom on the top floor. A Starbuck's coffee shop is located on the ground floor in the 24-hour lab and is available during the fall and spring semesters. The building houses over 130 computers for student use. Most software programs available on campus are installed on these computers, in accordance with licensing agreements.

The library has open stacks. All services are available most hours that the library is open, and hours have been tailored to fit the needs of non-traditional and evening/weekend students too. Service to students and faculty has top priority and the library has a reputation for providing excellent services.

Standard VIII-2. The library's technical collection must include up-to-date textbooks, reference works, and publications of professional and research organizations.

2. Library Technical Collection

Assess the adequacy of the library's technical collection and of the budget for subscriptions as well as new acquisitions. The library must contain up-to-date textbooks, reference works, and publications of professional and research organizations. It should also contain representative trade journals. Supply documentation, if possible. Assess the process by which faculty may request the library to order books or subscriptions.

The libraries provide access to over 320,000 items including books, electronic books, print periodicals, government documents, compact discs, videos and other multimedia, and to over 165 electronic databases. Subscriptions to more than 28,000 unique journals and newspapers, available either in print or online full text, provide the latest information for all disciplines. The website for the libraries is available at: http://library.fairmontstate.edu.

All library materials relating to Information Systems and technology are located in the Ruth Ann Musick Library on the main campus. There is a courier service among all of the libraries providing same or next day service for delivery of materials.

The FSU libraries hold over 7000 print and electronic books relating to information systems, engineering, technology, chemistry, mathematics, and physics in the combined collections. All print materials (with the exception of print journals) are classified in the Library of Congress or the Dewey Decimal Classification systems. The Musick Library is in the process of reclassifying all materials into the Library of Congress Classification, so the collections are currently split into two classification systems.

The current budget reflects the changing role of technology in the provision of access to information. In 2000, the emphasis at Fairmont State University was on print resources. In 2007, that focus has changed dramatically to online access and electronic databases containing thousands of journals, hundreds of reference books, downloadable e-audiobooks, and electronic full text books that may be read online. The library budget has shifted with this emphasis, with most of the funds going to electronic databases. For materials related specifically to information systems, expenditures were Databases: $8980 and for books, etc.: $1255.

Over twenty electronic databases are available relating to the sciences and to technology. These include general databases, such as Academic Onefile and Academic Search Premier, and more specialized databases such as the ACM Digital library. The library also has two IT databases from Faulkner. The IT Support Staff also pays for access to the Gartner collection, therefore this cost is excluded from the library funds reported in this section, but available to the entire campus community including IS faculty and students. The library will be adding Portico, in July, which has the backfiles of about 160 IEEE journals. Many of these databases are full text, or link to full text documents.

The IS faculty may make book requests to the School of Business (which has a library allocation), to the Faculty Senate Library Committee, or directly to the library.

Standard VIII-3. Systems for locating and obtaining electronic information must be available.

3. Library Electronic Access

Assess the library's systems for locating and obtaining electronic information.

All electronic databases are available to all students and faculty via the Internet. Using EZProxy, authentication is required from off campus, using the UCA (Unified College Account) username and password. This provides access to all databases 24X7, from anywhere via Internet access.

Standard VIII-4. Classrooms must be adequately equipped for the courses taught in them.

B. Classroom Equipment

Describe the equipment typically available in classrooms where you teach your courses. Assess its adequacy for the purpose.

The three teaching labs include 30 student PCs and one instructor PC. The instructor machine is connected to a data projector as well as an interactive white board. The instructor station is also configured to be a teacher station of SynchronEyes which allows

monitoring of the student machines as well as projecting student images, ftp, surveying, and quizzing. One lab is also the hardware/networking lab and has machines that are connected to the routers/switches and machines that are used for assembly and troubleshooting. The networking lab is a smaller-than-needed room (temporary home from a relocation due to the student center construction) and the other labs are adequate but could be larger and allow more faculty movement, student group work, and rearrangement. Beginning in the Spring 2008 semester, the IS Department will move to much larger facilities and these labs will be more than adequate size-wise. The fourth lab that the department uses is in Bryant Place (a student dorm). The lab is housed on a teaching wing of the dorm to encourage class attendance. This lab is not scheduled as a teaching lab but is used for the self-paced freshman application classes and also to give students a place to work on software that is not available in the standard installation (although most packages are also loaded on an least some machines in in the library). The layout of this lab is similar to the other three labs with the exception of the lack of interactive white board.

Standard VIII-5. Faculty offices must be adequate to enable faculty members to meet their responsibilities to students and for their professional needs.

C. Faculty Offices

Discuss and assess the adequacy of faculty offices to enable faculty to meet their responsibilities to students and for their professional needs.

Full-time faculty offices are adequate for working independently or having student consultations. The offices have, at minimum, a desk, a networked PC, a bookshelf, a file cabinet, and chairs for the faculty member and at least one visitor. The relocation of faculty offices caused the conference room to be divided into offices; however, the conference room should be available, again, beginning Fall 2007. At this time, there are no available offices for student researchers, part-time faculty, student organizations, or other student space. In Spring 2008, the faculty will relocate. It is not clear at this time what the new offices or faculty work area will include.

Appendix I. Information Relative to the Entire Institution

A. General Information

Institution	Fairmont State University
Department	Information Systems Department
Street	1201 Locust Ave
City	Fairmont
State	WV
Zip	26554
URL	www.fairmontstate.edu

Name and Title of Chief Executive Officer of Campus (President, Chancellor, etc.)

Daniel Bradley, Ph. D., PE	President
(Name)	(Title)

B. Type of Control

Private, non-profit	
Private, other	
Federal	
State	X
Municipal	
Other (specify)	
Affiliation, if private	

Check more than one, if necessary. If the above classifications do not properly apply to the institution, please describe its type of control.

The institution was founded in 1865, two years after the state was admitted into the Union, the university was established as the West Virginia Normal School at Fairmont—a private institution dedicated to educating teachers. West Virginia Normal School at Fairmont was eventually purchased by the state to become the Fairmont State Normal School, which made this training more readily available to the public. In the 1930s, the West Virginia Legislature changed the institution's name once again to Fairmont State Teachers College, a title that would change once more in 1943-44 to Fairmont State College. Fairmont State Community & Technical College was founded in 1974 and received independent accreditation in 2003 (a state mandate). On April 7, 2004 Fairmont State College's name changed to Fairmont State University. During the 2006 West Virginia Legislative session, a bill was approved to allow FSU and FSC&TC to once again share one accreditation. This merger means that more financial resources can be focused on service to students instead of incremental duplication of administrative overhead. On July 1, 2006, FSC&TC became a Division of FSU and was renamed Pierpont Community & Technical College. Today, Fairmont State

University and Pierpont Community & Technical College, serve the Upper Monongahela Valley, the state of West Virginia and the larger mid-Atlantic region as a resource for lifelong learning and career enhancement.

C. Regional or Institutional Accreditation

Name the organizations by which the institution is now accredited, give dates of most recent accreditation. Attach a copy of the most recent accreditation action by any organization accrediting the institution or any of its computer-related programs.

Higher Learning Commission: a member of North Central Association of Colleges and Schools, 1928: 1992-2003

D. Enrollment

Total enrollment for the entire institution (FTE)	4,614
Total faculty for the entire institution (FTE)	216

E. Funding Process

Describe the process for allocating institutional funds to the information systems program.

The Information Systems Program is housed within the School of Business. Funding requests are submitted to the Dean of the School who evaluates the justification of the request and determines if and, if applicable, the amount of funds to be provided to the department.

F. Promotion and Faculty Tenure

Summarize the promotion and tenure system and the system for merit salary adjustments. (Give an overview of actual practice; do not reproduce an entire section from the faculty handbook.)

Fairmont State University has the following professorial ranks: Senior Professor, Professor, Senior Associate Professor, Associate Professor, Assistant Professor, and Instructor. To be eligible to apply to the rank of Professor/Senior Level, a faculty member must meet the following minimum requirements: 18 years of combined college teaching and/or equivalent professional experience, a minimum of 8 years of teaching experience as a Professor at Fairmont State, and meet all criteria currently in effect for the rank of Professor. To be eligible to apply for promotion to the rank of

Associate Professor/Senior level, a faculty member must meet the following minimum requirements: 14 years of combined college teaching and/or equivalent professional experience if on the Technical Track, a minimum of 8 years of teaching experience as an Associate Professor at Fairmont State, and meet all criteria currently in effect for the rank of Associate Professor. All other promotions in rank consider the academic degree held, time in rank, and professional and scholarly activity.

Tenure exists at Fairmont State University for the experienced faculty member to assure academic freedom, to provide professional stability, and to protect against capricious dismissal. Since tenure is awarded at promotion to an academic rank, faculty members, in qualifying for tenure, must demonstrate performance to the same criteria relating to teaching, scholarly activity, possession of terminal degrees, service to the University community, and potential for professional growth as are required for appointment to the appropriate academic rank. Tenure is not automatic; faculty members apply for tenure at the beginning of the sixth year in a tenure-track appointment.

Faculty are evaluated annually and any salary adjustments are based strictly on merit.

Applications for promotion, tenure, and annual merit evaluations consist primarily of a Portfolio describing the applicant's educational profile, employment profile, professional performance, and containing evaluations from the applicant's supervisor, peers, and students.

The evaluative criteria in each case include:

- Excellence in teaching (classroom performance; development or revision of courses or curriculum; development of new or modified forms of instruction appropriate to course content and students);
- Accessibility to students, including advising;
- Professional and scholarly activity and recognition;
- Significant contribution and service to the University;
- Significant contribution and service to one's School;
- Evidence of continual professional growth and development;
- Publications and research; and
- Service to the people of the State of West Virginia.

Appendix II. General Information on the Unit Responsible for the Information Systems Program

If you are having more than one program evaluated, particularly if the programs are on separate campuses, the answers to these questions may vary from one program to another. If this is the case, please use separate copies of this section for each program, and clearly delineate which program is being described.

A. Information Systems Program Unit

Name	Information Systems Department
URL	www.fscwv.edu/acamisc/is/ or http://www.fairmontstate.edu/academics/Bus_IS_Program/default.asp

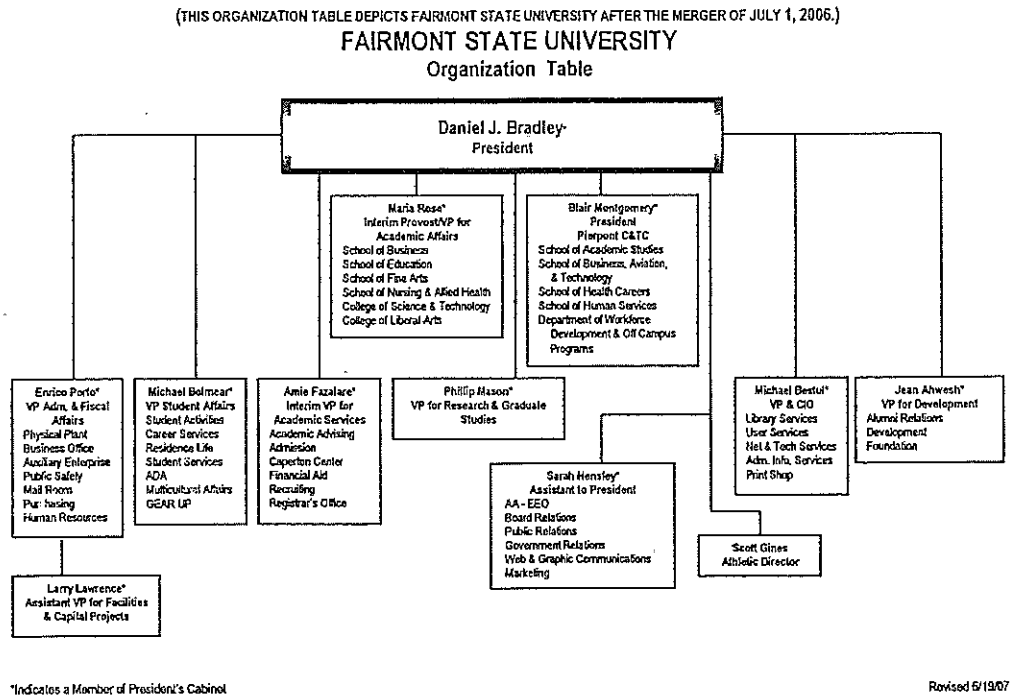
If the information systems program unit is not a department reporting to an administrative officer (e.g., Dean of College of Arts and Sciences) who in turn reports to president, provost, or equivalent executive officer, describe the unit.

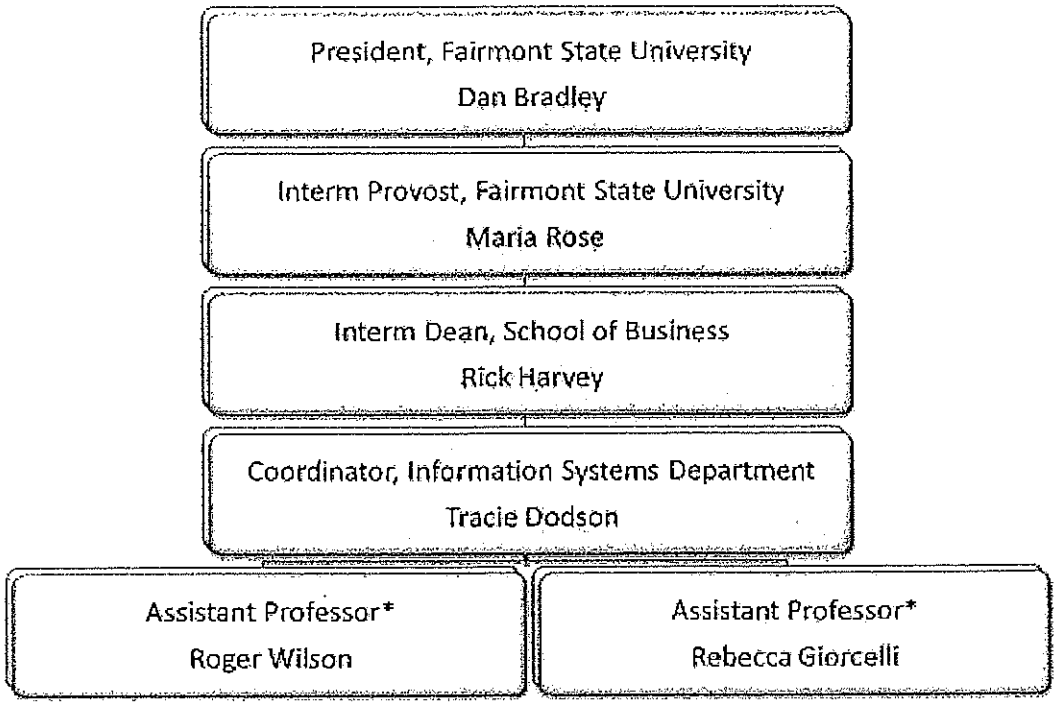
The Information Systems Department is housed within the School of Business. The Coordinator of the IS department reports to the Dean of the School of Business, who reports to the Provost, who reports to the President.

B. Administrative Head

Tracie M. Dodson	Assistant Professor and Coordinator of Information Systems
(Name)	(Title)

C. Organization Chart





*Note that the reporting relationship indicated here is for academic purposes only but includes departmental decisions and other program-oriented tasks. The official reporting relationship for all personnel and other supervisory functions for all IS faculty is to the Dean of the School of Business.

D. Computer-Related Undergraduate Degree Programs

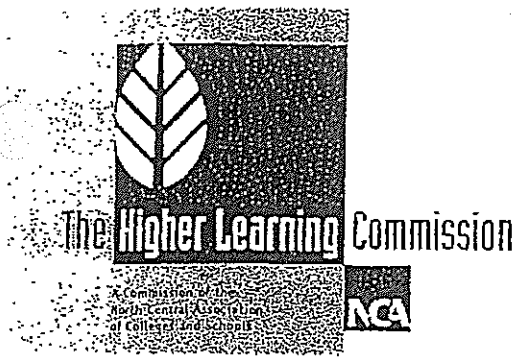
List all undergraduate computer-related degree programs offered by the institution, beginning with the program(s) being evaluated.

Program Title	Years Required	Degree Awarded	Administrative Unit	If accredited, by whom
Information Systems	4	BSIS	Information Systems Department	ACBSP IACBE
Computer Science	4	BSCS	Math, Computer Science, & Physics Department	
Computer Science Education P-12	4	BSEd	School of Education	NCATE
Information Systems Technology	2	AASIS	Business, Aviation, and Technology Department (C&TC)	

Are these programs adequately differentiated in all university information? Explain how.

Yes. The programs above are all administered by different units within Fairmont State. While there are some common courses taken in the programs above, the courses are considered service classes to the other department and are not shared for administration, curriculum development, or other purposes. Discussions of content and objectives do occur to ensure that the courses are meeting the needs of the department(s) but faculty teaching assignment and all other course-related duties are the responsibility of the course's home department.

The distinction between IS and CS has been extensively studied and is commonly understood and accepted across institutions of higher education. This understanding is mirrored at Fairmont State. The CTC program and the FSU IS Department are linked closer in terms of courses, resources, and decision-making as the AAS was once administered by the FSU IS Coordinator and the programs share lab space. There is currently a CTC IS Coordinator and monthly faculty meetings to allow group decision-making of common courses and other shared resources..



30 North LaSalle Street, Suite 2400 | Chicago, IL 60602-2504 | 312-263-0456
800-621-7440 | Fax: 312-263-7462 | www.ncahigherlearningcommission.org

Serving the common good by assuring and advancing the quality of higher learning

August 8, 2003

Dr. Daniel J. Bradley
President
Fairmont State College
1201 Locust Ave.
Fairmont, WV 26554

Dear President Bradley:

This letter is formal notification of the action taken concerning Fairmont State College by the Higher Learning Commission. At its meeting on August 8, 2003, the Institutional Actions Council voted to continue the accreditation of Fairmont State College, and to adopt any new items entered on the attached Statement of Affiliation Status (SAS). The Commission Board of Trustees validated that action through its validation process concluded on August 8, 2003. The date on this letter constitutes the effective date of this new status with the Commission.

Normally a new Record of Status and Scope (RSS) is attached to this letter. The RSS includes the SAS and the Statement of Institutional Scope and Activities (SISA). The SISA is generated from the database and includes specific information gleaned from your Annual Report as well as from the team. This year we are holding the annual report information gathered online until our database redesign is complete. The Annual Report was designed to link with the new database, not our current one. Therefore, instead of sending you a Record of Status and Scope that is not current, I choose only to send the SAS portion of it. As soon as the new database is finished and tested, I will forward your full Record of Status and Scope. It will summarize the relationship between the Commission and Fairmont State College. Modifications to it may require prior approval from the Commission, although several sections of the Statement of Institutional Scope and Activity can be modified through submission of the Annual Report. In the meantime, I highly recommend that if you have any questions about how planned institutional changes might affect your relationship with the Commission, you write or call me.

Changes in your institution that would require further Commission action prior to their initiation are found in Chapter 12 of *The Handbook of Accreditation, Second Edition* and on pages 42-46 of the March, 2002, *Addendum to the Handbook*. The *Addendum* can be found on the Commission's website at www.ncahigherlearningcommission.org under the Information for Affiliated Institutions and Consultant Evaluators. Please review them with care.

Information about informing the public of this action is found in Chapter 15 of the Commission's *Handbook*.

On behalf of the Board of Trustees I thank you and your associates for your cooperation.

Sincerely,

Steven D. Crow

Steven D. Crow
Executive Director

Enclosure: Statement of Affiliation Status

c: Evaluation Team Members
Chair of the Board

The Higher Learning Commission
30 North LaSalle Street, Suite 2400 | Chicago, Illinois 60602-2504 | 312-263-0456
800-621-7440 | FAX: 312-263-7462 | www.ncahigherlearningcommission.org

FAIRMONT STATE COLLEGE
1201 Locust Ave.
Fairmont, WV 26554

Statement of Affiliation Status

Status: Accredited (1928-34; 1947- .)

Highest degree awarded: Master's.

Most recent action: August 8, 2003.

Stipulations on affiliation status: Accreditation at the Master's level is limited to the MEd. degree.

New degree sites: No prior Commission approval required to offer existing degree programs at Gaston Caperton Center in Clarksburg.

Progress reports required: 6/1/06; A report on implementation of the MEd. program.

Monitoring reports required: None.

Contingency reports required: None.

Other visits required: None.

Last comprehensive evaluation: 2002-03.

Next comprehensive evaluation: 2012-13.

ACBSP

Association of Collegiate Business Schools and Programs

DEC 16 2004

Bringing Together Those Dedicated To Teaching Excellence

November 29, 2004

Dr. Daniel Bradley
President
Fairmont State University
1201 Locust Avenue
Fairmont, West Virginia 26554-2470

Dear President Bradley:

Congratulations! The Board of Commissioners of the Baccalaureate/Graduate Degree Commission met on November 4-6, 2004, and granted Full Accreditation with one note for your business programs.

The note placed on your programs is:

Note on Standard 4.1 Selection and Use of Information and Data. Describe the business school's or program's outcomes assessment program, including the selection, management, and use of fact-based information and data needed to support key processes and improve performance that is consistent with the unit's mission

In addition, the Board of Commissioners requested the faculty credentials for Barbara Jacowitz who was classified as professionally and should have been minimally qualified. Please send Ms. Jacowitz's credentials for review by the Faculty Credentials Committee by January 20, 2005.

You are encouraged to work with Commissioner Dr. Ron Galloway (phone: 208-467-8404, email: rrgalloway@nnu.edu) on the removal of the note.

As a result of this note, you will be required to submit a status report on only the note each year, starting in 8/1/2005, until the note is removed. Your first full Periodic Report will be due in 8/1/2007, and every three years after that. Your ten-year reaffirmation self-study will be due in 2015.

ACBSP encourages you to publicly announce that your business programs are accredited. During the Annual Conference, you will receive an updated ACBSP "Press Kit" which has examples and suggestions for publicizing your accreditation. As you prepare these materials, the following is your official ACBSP statement:

7007 College Boulevard, Suite 420 • Overland Park, Kansas 66211
913-339-9356 • Fax 913-339-6226 • info@acbsp.org • www.acbsp.org

Fairmont State University is nationally accredited by the Association of Collegiate Business Schools and Programs to offer the following business degrees:

- B.S. Degree in Business Administration with concentrations in Accounting, Information Systems, Finance, General Business Management, Marketing, and Sport Management.

I hope that you will plan to attend the accreditation ceremonies to receive recognition on Sunday evening, June 26, 2005, at our Accreditation Banquet. This year the Annual Conference is being held in Washington D.C., at the JW Marriott Pennsylvania Avenue.

You are encouraged to attend along with your Chief Academic Officer and Dean of the College of Business. Many institutions even invite many of the faculty to this prestigious celebration.

There is a breakfast on Sunday morning June 26, 2005, at 8:00 a.m. for those institutions that are receiving accreditation. The purpose of the breakfast is to more personally congratulate the institutional representatives and to outline the procedures that will be followed at the accreditation banquet. At least one institutional representative should attend the breakfast.

In addition to the breakfast, a professional photographer will be available at 5:30 p.m. on Sunday, June 26 to photograph all institutional representatives along with the ACBSP Director of Accreditation, Associate Director, and the Chair of the Baccalaureate/Graduate Board of Commissioners. Appropriate dress for the photo session and banquet is business professional.

If you would like additional information regarding the conference or need additional registration forms, please visit our website at www.acbsp.org. We shall appreciate your completing the form and returning it to us.

Congratulations on maintaining such a high quality business program.

Sincerely,

Steve Parscale
Director of Accreditation
Enclosures

c: Dr. Frederick Fidura, Provost/Vice President, Academic Affairs
Dr. Rebecca Schaupp, Chair, School of Business
Dr. Gary Bennett, Assistant Chair, School of Business
Dr. Richard Symons

INTERNATIONAL ASSEMBLY
for COLLEGIATE BUSINESS EDUCATION

December 10, 2004

Dr. Daniel Bradley
President
Fairmont State University
111A Jaynes Hall
Fairmont, WV 26554

Dear President Bradley:

The IACBE Board of Commissioners met on November 11-12, 2004 to consider accreditation requests for business and business-related degree programs, and your request was among those reviewed. I am pleased to report that the Board of Commissioners has granted accreditation with observations and a note for your business and business-related degree programs (see attached listing). This accreditation is valid until one year after your next regional accreditation site visit, which we show as 2013.

In making the review, there are usually observations and/or notes that are a part of the commissioners' actions. Observations represent suggestions of the site visit team and the commissioners which are worthy of consideration by the administration of your institution. No specific action is required of you for the observations mentioned in this letter, but we encourage you to consider these during your institutional planning process. The notes, on the other hand, require action by your institution within a three-year period. As appropriate action is taken on the notes, the actions should be addressed in the annual report that you prepare and file with the IACBE each year.

Observations:

Expectation B-5, Faculty Development:

The self-study states that the college has a budget of $279,037 for faculty development activities, from which the School of Business is allocated $2,095, which is less than one percent of the total budget. The School of Business generates over 16 percent of the student credit hours for the college. The faculty in the School of Business expressed a need to have additional funding for faculty development and that consideration be given

to using a portion of faculty development funds to assist faculty in earning higher academic degrees.

Expectation C, Scholarly and Professional Activities:

In the self-study, page 31, none of the faculty took credit for "scholarship of integration" as defined in the IACBE Accreditation Manual using the Carnegie Foundation definition of types of scholarship. It would be useful for the institution to consider having annual workshops for all faculty in the college to create a better understanding of scholarly activities content. The SIFE program is an example of integrative scholarly activities.

Expectation D-1, Financial Recourses:

In Table 8 of the self-study (page 36) it was observed that the School of Business generated 16.28 percent of the student credit hours and was allocated 11.25 percent of the educational and general operating budget for the institution. Consideration should be given to annually reviewing this imbalance to make certain the business program is adequately funded.

Expectation D-4, Educational Technology and Support:

The business students expressed an interest in having the faculty make greater use of the classroom technology that is already available in the institution.

Expectation H, International Cooperation:

During the site visit, it was learned that the college is doing more in the international area than was mentioned in the self-study. It would be helpful to list the number of students that are involved in the various international programs, and to provide more information about the two Japanese student transfer programs.

Note:

Expectation 1, Outcomes Assessment:

An outcomes assessment plan is on file with IACBE. There are two areas that should be added to the plan: (1) a description of the personal development of business students while in college, and (2) a description of how basic skills development is handled for business students that are lacking skills in writing, mathematics, etc. You may have already developed a rubric to evaluate the results of student projects in the capstone course. This rubric, and others you are using, should be included in your outcomes assessment plan. As the outcomes assessment plan is fully implemented, the results should he reported in your annual report to the IACBE, along with changes and improvements you are making as a result of the assessments.

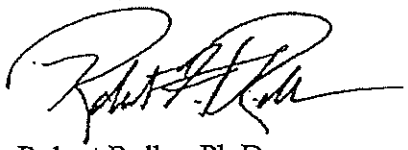
Commendation:

One of the strengths recognized by the students in the School of Business is the commitment of the faculty to assist students in all aspects of student learning. The results can be observed through the student organizations that are successful in competitions sponsored by national organizations. The commitment of the students to the college is also a sign of the attention given them by the faculty and staff.

Specialized accreditation by the IACBE is predicated on your institution remaining in good standing with your regional accrediting body and staying in full compliance with the IACBE's expectations and policies as set forth in the by-laws and the *Accreditation Process Manual*. We encourage your academic business unit to be actively involved in the IACBE professional development programs and activities, including the annual conference, regional meetings, workshops, and site visits/peer reviews.

Should you have any questions or if I can be of assistance to you, please contact me though the IACBE headquarters office.

Sincerely,



Robert Roller, Ph.D.
Chair, Board of Commissioners

CC: Dr. Anne Patterson, Provost/Vice President of Academic Affairs
Dr. Rebecca Schaupp, Chair, School of Business
Mr. Gary Bennett, Assistant Chair, School of Business

Fairmont State College

Degree Programs Reviewed In the Self-Study

Bachelor of Science degree in Business Administration with concentrations in Accounting, Finance, General Business, Information Systems, Management, Marketing, Business Education and Sport Management

Appendix III. Finances

A. Finances Related to the Information Systems Program(s)

For the information systems program, indicate below the funds expended during the fiscal year immediately preceding the visit [1].

Any and all funding requests are submitted and approved/denied by the School of Business. The IS Department does not have any funds directly and specifically allocated. As the table below shows, the main expenditure is for faculty salaries.

	Institutional Funds	Non-recurring or Outside Funds
Administrative Salaries	0	0
Faculty Salaries	$189,342.00	0
Non-teaching Professionals' Salaries[2]	0	0
Support Personnel Salaries & Wages		
Secretarial	$10,250.00	0
Technician	0	0
Other (specify)	0	0
Graduate Students	0	0
Operating Expenditures (Excluding research operations and travel)	0	0
Capital Equipment Expenditure: (Including value of allocated time for teaching and research):	0	0
Teaching	0	0
Research	0	0
Computer Expenditures: (total, including value of allocated computer time for teaching and research)	$3,000.00	0
Hardware		
Software	$1,000.00	0
Allocated time	0	0
Travel Expenditures (non-research funds)	$3,700.00	0
Scholarship Awards (if administered by the Information Systems Program Unit)	0	0
Library (if administered by Information Systems Program Unit)	0	0
Research (if separately budgeted)	0	0
Other (specify)	0	0
Total	$207,292	0

[1] It is understood that some of the data may have to be estimated to cover the entire fiscal year. In such case, unless the differences are insignificant, an updated report should be provided for the evaluation team at the time of the visit.

[2] Non-teaching professionals would include research professors, faculty members on paid sabbatical leave, post-doctoral research associates, and other degreed professionals.

B. Operating and Computing Expenditures

1. Operating expenses for the information systems program unit.

Fiscal Year	0	0	0	0	0
Institutional Funds	0	0	0	0	0
Outside Funds	0	0	0	0	0

2. Computer hardware/software capital expenditures (excluding equipment used primarily for research) for the information systems program unit.

Again, the unit does not have specific money allocated or any budget administered solely by the IS Department. Labs are replaced on a three or four year cycle. The lab costs associated with replacement are approximately $170,000. One lab will receive new machines for Fall 2007 (Colebank Hall Room 144).

Fiscal Year	0	0	0	0	0
Institutional Funds	0	0	0	0	0
Outside Funds	0	0	0	0	0

C. Additional Funding

If additional funds, other than those listed in Table A above, are available to faculty to support scholarly activities such as travel to technical meetings, e.g., consulting support, give the number of faculty for whom this type of support is appropriate and an estimate of the amount of support available.

IS Program is housed within the School of Business and the School of Business receives an allocation of course fees every semester associated with all business courses, including information systems. To date, there has been no attempt to allocate any portion of the course fees budget directly to the Information Systems program. The School of Business generally expends the course fees, where appropriate, for professional development, travel, clerical support, and capital expenditures.
There are currently fourteen (14) faculty members in the School of Business including the three (3) Information Systems faculty. The annual course fees budget is approximately $50,000. One example of the use of these funds is the purchase of the tablet PCs that the IS faculty (and other Business faculty) use for travel to meetings and other purposes.

Appendix IV. Information Systems Program Personnel

A. Term of Appointment of Administrative Head

9 month X 12 Month _____ Other (specify) _____

B. Number of Personnel Associated with Program

	Full-time	Part Time		Total
	Number	Number	FTE	FTE
Faculty	3			3
Non-teaching Professionals	0			
Administrative	0			
Computer Lab Personnel:	0			
Professionals	0			
Technicians	0			
Secretarial, Accounting, etc.	.5			.5
Graduate Teaching Assistants	0			
Graduate Research Assistants	0			
Graduate Students	0			
Undergraduate Students	0			

C. Policies

Provide a brief description to give an overview.

1. Describe policy toward private consulting work, sponsored research projects, and extra compensation.

Faculty sign an agreement annually indicating that they are not involved in any outside interests that prohibit them from completing their duties to Fairmont State. Faculty who wish to work privately as a consultant or other short-term or part-time assignment may do so as long as they fulfill their duties to Fairmont State.

If a faculty wishes to seek external funding for the department or through the University, they work through the Office and Research and Graduate Studies to create proposals and budgets ensuring that the proper overhead and other administrative fees are included and courses are covered.

In general, faculty cannot be paid by or through the University over their salary unless an overload contract is created. Overloads are limited to ensure that faculty do not overextend themselves.

2. State the standard teaching, administrative, research, and other loads on the faculty, in general terms.

Faculty are expected to teach 4 courses each semester (8 per academic year). If a faculty wishes to pursue research or other interests, they must budget within their proposal appropriate funds to cover the course they will reassign to another faculty member. Faculty are expected to attend meetings, serve on committees, advise students, and participate in other activities expected of higher education faculty members. Examples include attending sessions for personal development: providing service to the department, school, institution, and community; mentoring new faculty; or other duties.

3. Describe policies and procedures for recruiting faculty for the information systems program. Describe any barriers to hiring the appropriate faculty.

Faculty ads are placed on the Fairmont State web, in the Chronicle of Higher Education and one other national publication (search committee choice). Previous searches have shown barriers to include a shortage of applicants for he pool and funds available for salary/benefits (both of which are not limited to Fairmont State).

Appendix VI. Admission Requirements

A. Admission of students

1. Describe the criteria and procedures used for admitting students to the information systems program (s).

The admissions criteria and procedures for the Information Systems degree program are the same as all other baccalaureate degree programs in the School of Business, which follow the general University guidelines for admissions. The School of Business has no unique or additional admissions requirements beyond the general University guidelines. The general admissions criteria and procedures are provided on pages thirteen through eighteen of the 2006-2007 Fairmont State University catalog. The following summarizes these admissions criteria and procedures:

All students applying for admission to Fairmont State University degree programs are required to complete and submit the following forms and credentials:

- Admission application
- Housing and financial aid request forms (if applicable)
- Official high school transcript (except transfer students having a 2.0 average and at least 30 hours of completed coursework)
- Official college transcript (if student has transfer credit)
- Official ACT or SAT scores with writing assessment
- GED scores were applicable
- Statement of Activities of educational and work experience if the student has been out of high school six months or longer
- Immunization Records (if born after January 1, 1957)

Admission to Fairmont State University degree programs is restricted to graduates of approved high schools who have a 2.5 high school grade point average (GPA) and a minimum composite score of 17 on the Enhanced American College Test (ACT) or 830 on the Scholastic Aptitude test (SAT). These scores do not include the writing assessment, which will be evaluated in addition to the composite scores.

Applicants must also satisfy the following minimum high school unit requirements:

- 4 units English (including grammar, composition, and literature)
- 3 units Social Studies (including U.S. History)
- 3 units Mathematics (Algebra I and at least one higher unit)
- 3 units Laboratory Science (At least two units from Coordinated and Thematic Science 10, Biology, Chemistry, Physics, and other courses with a strong laboratory science orientation)

Effective August 2008, students must successfully complete the following minimum academic core requirements (in addition to GPA and ACT/SAT requirements) prior to admission:

- 4 units English (including grammar, composition, and literature)
- 3 units Social Studies (including U.S. History)
- 4 units Mathematics (three units must be Algebra I and higher)
- 3 units Science (all units to be laboratory science)
- 1 unit Arts
- 2 units Foreign Language (two units of the same foreign language)

Students who are not high school graduates may be admitted to Fairmont State University by passing the General Educational Development (GED) test and scoring at least a composite score of 17 on the ACT or 830 on the SAT. They must be either:

- Veterans,
- Over 19 years of age, or
- Past the age they would have been at the completion of a traditional high school education.

Such persons must have been out of school more than one year preceding application for admission.

2. Describe procedures, including the evaluation of transfer credits, for students admitted to the program as transfer students.

From within the institution

Current students of Fairmont State University may change their major or degree program at their discretion. The student wishing to change major or degree program must advise the Office of the Registrar at the beginning of the semester for which the change is to take effect in order for the student's records and transcript to be amended to reflect the change and further, to be assigned a new advisor in the appropriate university program.

Once the student has been assigned an advisor, they meet with the advisor to determine the courses required to complete the BSIS degree. Although the Liberal Studies requirements are the same for all Bachelor of Science students, in general, and with the exception of the Business Core, very few major courses will transfer from other programs on campus as the course content is not the same. Exceptions may be made on a case-by-case basis for students enrolled in Computer Science and other technology-related programs, depending on the courses completed.

The School of Business and, thus, the Information Systems degree program have no unique or additional requirements beyond the general requirements of Fairmont State University.

Students transferring from Pierpont Community and Technical College follow the procedure outlined below for transferring from another institution.

From another institution

Any applicant for admissions to Fairmont State University who has attended another collegiate institution will be classified as a transfer student. Every effort will be made to allow credit earned at other accredited colleges and universities to count towards a degree at FSU. Credits and grades

earned at any public institution governed by the Higher Education Policy Commission shall be transferable to Fairmont State University.

Transfer students must meet the admissions requirements stated in Item 1 above. Additionally, they must provide evidence of good standing at the institution last attended, and must have maintained a minimum 2.0 GPA. Students transferring fewer than 30 hours must provide an official copy of the high school transcript and ACT or SAT scores, along with a copy of the college transcript.

A student may transfer up to 32 credit hours of undergraduate coursework in the areas of English composition, communications and literature, mathematics, natural science, and social science as liberal studies credits. The maximum credit accepted from a Junior or Community College accredited by the North Central Association of Colleges and Schools or other regional accrediting association will not exceed 72 semester hours.

3. Explain the policy of the institution in admitting students with conditions and state how the conditions must be made up.

Again, the admissions criteria and procedures for the Information Systems degree program are the same as all other baccalaureate degree programs in the School of Business, which follow the general University guidelines for admissions. The School of Business has no unique or additional admissions requirements beyond the general University guidelines. The 2006-2007 Fairmont State University catalog states:
"Exceptions to the above criteria [general admissions procedures] are possible on a case-by-case basis." These individual case occurrences are initially reviewed by the Office of Admissions and/or the Office of the Registrar, with consultation with the appropriate Dean or Chair.

Other than the above noted exceptions, if the general admissions requirements are not met, students are typically admitted to the Pierpont Community and Technical College, which has an open admissions philosophy. Once any and all deficiencies have been corrected, and the student can meet the FSU general admissions requirements, the student can then apply for admissions to Fairmont State University for the appropriate degree program.

4. Describe the general policy and methods of the unit offering information systems program(s) in regard to admission with advanced standing.

In regard to admission with advance standing, the general policy and methods for the School of Business and, thus, the Information Systems degree program are the same as the Fairmont State University general policies and methods. The School of Business has no unique or additional advanced standing policies or requirements beyond the general university guidelines.

Fairmont State University general policies regarding advanced standing only addresses advanced standing for English and foreign languages. Based on the high school record and performance on the ACT or SAT, the Office of the Registrar will determine eligibility for advanced standing and credit in English and foreign language.

Fairmont State University also recognizes certain advanced placement examinations of the College Board Advanced Placement Program. The AP examinations are prepared by the College Board, and the papers are graded by readers of the Educational Testing Service. Students cannot receive credit for a score below 3 on any exam. A complete listing of recognized examinations can be found on page 16 of the 2006-2007 Fairmont State University Catalog. There are no examinations recognized for information systems. There are two examinations recognized for computer science:

- Computer Science A: Min. Score 3 Credit Hours 3 Elective Credit
- Computer Science AB: Min. Score 3 Credit Hours 6 Elective Credit

The College Level Examination Program (CLEP) provides students with the opportunity to demonstrate college-level achievement through a program of exams in undergraduate college courses. Students must achieve a minimum score of 50 to receive credit. While the School of Business offers CLEP tests for several business core courses, there are currently none for information systems.

Students may also earn college course credit by special examination. To apply for permission for such an examination, applicants must be enrolled at Fairmont State University or must have completed one semester or summer session at FSU. Applicants must first schedule an interview with the College or School Dean or department representative, who will evaluate the student's background, experience, and qualifications to establish eligibility and give permission to take the examination. In order to gain college credit by special examination, students must demonstrate better than average proficiency on the examination, as determined by the examiner.

In addition to the special examination policy stated above, the department also has a Certification Conversion Policy. The Certification Conversion policy allows students who have achieved select nationally-recognized certifications to receive credit for coursework. The policy is available at the end of this section or by clicking here.

5. Describe any special admission requirements for entry into the "upper division" in the information systems program(s).

Certain liberal studies or business core courses must be completed before specific courses in the information systems degree program can be taken. Upper level courses have prerequisite courses to assure that students have the necessary preparation for each course in the program. Other than these prerequisite courses or permissions listed in the course descriptions, there are no additional admission requirements to take upper-level IS classes.

The following is a list of the Information Systems degree program required courses with the prerequisites:

COMP 1102 (Principles of Programming I)
Prerequisites: MATH ACT score of 21 or MATH SAT score of 500 or Compass score of 49 or MATH 1100 (Intermediate Algebra)

INFO 2200 (Fundamentals of Information Systems)

INFORMATION SYSTEMS

POLICIES ON

CERTIFICATION CREDIT CONVERSION
and
CERTIFICATION EXAMINATION

Fairmont State University

and

Pierpont Community and Technical College
a Division of
Fairmont State University

May, 2006

Certification Conversion Policy

Eligibility

Students

Any student currently attending Fairmont State who has minimally completed twelve (12) hours of course work successfully at Fairmont State College/Fairmont State Community and Technical College through standard course format (may include online courses) may request certification conversion.

Maximum Hours

The maximum number of hours eligible for conversion to credit shall be eighteen (18) hours. Any residency requirements or other restrictions listed in Fairmont State catalog(s), school policies, or departmental policies shall supersede the guidelines set forth in this policy.

Date of Exam

Certification must have taken place (and/or examination(s) passed) within thirty-six (36) calendar months of date certification conversion to credit is requested. Students who have not completed the twelve (12) hour requirement as listed in section 1.1 of this policy may apply for conversion prior to the completion of the twelve (12) hour requirement but credit will NOT be granted until a minimum of twelve (12) hours have been completed successfully at Fairmont State College/Fairmont State Community and Technical College. Special consideration may be granted to extend the thirty-six (36) month limitation under the following conditions:

A. Material on the exam passed is the same material that is currently covered in the corresponding course(s).

B. Instructor of corresponding course(s) is satisfied that the student has full knowledge of the course material and grants permission for the conversion to credit (proof of knowledge or hands-on exercises may be required at the instructor's discretion).

Courses for which Credit may be obtained

1 Microsoft Office Specialist (MOS)

Word Specialist and Expert 3 Hours

Conversion Course

OAD 2232 3 Hours

Excel Specialist and Expert 3 Hours

Conversion Course

IS 2220 - Spreadsheet Design 3 Hours

Access Specialist 3 Hours

Conversion Course

OAD 2233 - Records Management 3 Hours

2 A+ 6 Hours

Exam COMP-TIA # 220-301 and #220-302

Conversion Course

IS 2205 - Microcomputer Hardware and Operating Systems 3 Hours

Exam COMP - TIA # SKO-002

Conversion Course

IS 206 - Advanced Hardware and Operating Systems **3 Hours**

3 CCNA **12 Hours**

Exam Cisco #640-801

Conversion Courses

IS 250 - Networking Fundamentals **3 Hours**

IS 251 - Router Theory **3 Hours**

IS 252 - Advanced Routing and Switching **3 Hours**

IS 253 - Project Based Learning **3 Hours**

4 MCAD/MCSD

Microsoft Exam 70-306

Conversion Course

IS 3339 – Programming, Files, and Data Structures

Microsoft Exam 70-305

Conversion Course

IS 3340 – Advanced Application Development

Policy Procedures and Fees

Form

Students submitting a request for credit must complete the *Request for Exam/Certification Conversion to Credit* Form.

Proof of Completion

At the time of the request, all proof of passing exam scores or certifications granted must be provided. Any request submitted without the proper documentation will be denied and the student will be required to complete another

request. Denied requests are NOT subject to any fee refunds NOR will any fees from prior denied requests be applied to future requests (denied request fees are forfeited).

Exam/Certification Cost(s)

Fairmont State will in NO MANNER bear the cost(s) associated with exams or certifications that may be converted to credit under section 2 of this policy. All payments due the vendor providing the exam are the sole responsibility of the student taking the exam and requesting credit. No reimbursement is implied in this policy nor will any be made. Fairmont State Community and Technical College students should see their Advisor for potential Perkins funding monies.

Conversion Costs

A one-time fee per credit hour (as dictated by the credit-by-exam fees - currently $22 per credit hour) will be assessed at the time the request is made. Any increases in the credit-by-exam fee will also increase the certification conversion credit hour rate. This fee must be paid to the Fairmont State cashier's office no more than one week prior to or following the request for credit. Proof of payment (cashier's receipt) must be submitted.

Fee Waiver

Students who have taken courses through the Fairmont State Community and Technical College Workforce Education Center AND who have met all other requirements of this policy shall receive a waiver from the $22 per credit hour fee and shall pay instead a one-time fee of $22 per request for any number of hours requested (up to the eighteen (18) hour maximum). Proof of completion of the

courses through the Center for Workforce Education must be provided at the time the request for credit is made.

Request for Exam/Certification Conversion to Credit

Date of Request: _____

Part A - to be completed by the Applicant

Student Information

Name: _____

Social Security Number: _____

Degree: _____ Advisor: _____

Hours Passed at Fairmont State College (must exceed 12 before awarded): _____

Certifications/Exams Passed

List all certifications/exams passed for which you are requesting consideration for conversion to credit.

_____

_____

_____

_____

_____

_____

Courses For Credit Conversion

List all courses for which you are requesting credit (to a maximum eighteen hours) - hours up to maximum may be granted per your request and may be fractional amounts of the established hours listed in Section 2 of the *Certification Conversion Policy.*

_____

_____

_____

_____

_____

_____

Part B - Internal Use Only

Proof of Certification
[ ] yes [ ] no

Proof of Minimum of 12 hours completed at Fairmont State College/Fairmont State Community and Technical College
[ ] yes [ ] no

Proof of Payment
[ ] yes [ ] no
If yes, Amount of Payment: _____

Waiver Applied
[ ] yes [ ] no
If yes, attach proof of CWE course

Credit Request
[ ] Approved [ ] Denied

Credits on Hold (12 Hour Minimum)
[ ] yes [ ] no

Number of Hours Granted: _____

Date Hours Granted: _____

Course Equivalencies Granted:

_____

_____

_____

_____

_____

Attach all documentation to and forward to Academic Advisor

Created 05/01 Updated 09/06

Certification Examination Policy

Fairmont State is committed to student success and encourages students to obtain certification in their program area. Therefore, Pierpont Community and Technical College will fund certification exams for the following certification instruments:

CCNA—Cisco Certified Networking Associate
CompTIA A+
CompTIA Linux+
CompTIA Server+
Microsoft Office Specialist

The following guidelines and policies apply.

General Guidelines

1. Students receiving funding for certification exams must be currently enrolled in one of the following programs or must have graduated from one of these programs within six months of attempting the exam:
   Associate of Applied Science, Information Systems;
   Associate of Applied Science, Business Technology;
   Associate of Applied Science, Office Management and Technology (formerly Administrative Support);
   Administrative Assistant Skill Set;
   Office Technology Skill Set;
   Accounting Paraprofessional Skill Set.
2. Students must receive program verification and exam eligibility from their academic advisor and present the verification to the test administrator upon registration. (Form attached)
3. Exams must be taken at Fairmont State's Center for Workplace Education. The Center for Workplace Education will register students, administer exams, and charge the fees to the appropriate account.
4. If a qualifying exam or voucher option is available for the exam being attempted, Fairmont State will fund only the portion above the voucher allowance.
5. Upon completion of the exam, students must submit copies of the verification/eligibility form and test results to their academic advisor within 2 weeks of the examination date.

Exam Specific Guidelines

Cisco Certified Network Associate (CCNA)
Students may obtain CCNA certification by completion of two individual exams or one composite exam. Upon completion of INFO 2250 and INFO 2251 students may attempt the first part of the exam. Upon completion of INFO 2252 and INFO 2253 students may attempt the second part of the exam or the composite exam. Either method will be funded after the student successfully completes the qualifying exam and receives the voucher. All General Guidelines apply.

CompTIA A+
Upon completion of INFO 2205 students will receive a voucher from their instructor to attempt the A+ Core Hardware exam and A+ OS Technological exam. Both exams will be funded. However, students must successfully complete the A+ Core hardware exam at least one week prior to attempting the A+ OS Technological exam. The exams may not be taken at the same time. All General Guidelines apply.

CompTIA Linux+
Upon completion of INFO 2255, Fundamentals of UNIX, students will receive a voucher and may attempt this exam. All General Guidelines apply.

CompTIA Server+
Upon completion of INFO 2206, Advanced Operating Systems, students will receive a voucher and may attempt this exam. All General Guidelines apply.

Microsoft Office Specialist
All General Guidelines apply.

PROGRAM OF STUDY VERIFICATION/ EXAM ELIGIBILITY

I verify that _____

is currently enrolled in or has graduated from (within six months of graduation) the

_____

program of study and is eligible for exam payment.

_____
Academic Advisor

NOTE--

To register and schedule an exam, contact Keith Nichols at 367-4930 or knichols3@fairmontstate.edu.

You must present this document along with your voucher to the test administrator on the day of the exam. For directions to the testing facility, please visit http://www.fairmontstate.edu/CWE/location.asp.

APPENDIX X

Program Assessment

Sample of Course Assessment Plans and Related Artifacts

Program Assessment for INFO 2200-Fall 2008 and Spring 2009

Course Outcome 2200.2

Students should be able to differentiate data from other management decision-making terminology in the business environment.

Findings for INFO 2200 (Fundamentals of Information Systems)

Summary of Findings: Assignment 2, Exam 2, Project Proposal, and Final Exam artifacts

Fall 2008

Weekly Assignment Results:

Assignment 2-

Average Grade = 70.48668

Max = 100/100

Min= 0/100

50>=90%

15>=80%

4>=70%

0>=60%

20<60%

Exam 2-

Average Grade = 73.53881

Max = 100/100

Min= 0/100

13>=90%

27>=80%

21>=70%

13>=60%

9<60%

Results: Satisfactory Performance Standard Achievement: Met

Recommendations: During the fall 2008 semester, the course had two main issues. First, the textbook selected for the class is normally used for advanced undergraduate and graduate classes in management information systems. Many students had trouble reading and understanding the textbook, as well as using it to study for exams. Second, the class is numbered and sequenced for second year business, accounting, and information systems student; however, the course content requires student to understand topics that they have not covered in their business courses. Topics such as marketing, management, accounting, finance, and human resources are at the core of a management information systems course; therefore, students need at least an introductory level of understanding to grow in this MIS course.

Spring 2009

Weekly Assignment Results:

Assignment 3-

Average Grade = 65.41221

Max = 100/100

Min= 0/100

13>=90%

15>=80%

15>=70%

6>=60%

4<60%

Exam 2-

Average Grade = 79.96176

Max = 100/100

Min= 0/100

10>=90%

16>=80%

15>=70%

9>=60%

8<60%

Results: Satisfactory Performance Standard Achievement: Met

Recommendations: During the spring 2009 semester, the course continues to have an issue with sequencing causing students to struggle based on their lack of background in fundamental business courses, such as marketing, management, accounting, finance, and human resources. To assist students with this, a new curriculum proposal is being submitted to alter the course and change the sequence so students will be required to take at least some of their fundamental business classes prior to enter this class. Part of the course restructure will be to update the course outcomes and material to reinforce the subject matter covered in their introductory business course, prior to introducing MIS into the course mix.

Course Outcome 2200.4

Students should be able to apply strategic information systems and reorganization principles to achieve the goals of the organization.

Findings for INFO 2200 (Fundamentals of Information Systems)

Summary of Findings: Project Proposal, Exam 2 and Final Exam artifacts

Fall 2008

Project Proposal-

Average Grade = 75.75516

Max = 100/100

Min= 0/100

58>=90%

5>=80%

2>=70%

0>=60%

17<60%

Final Exam-

Average Grade = 69.79454

Max = 100/100

Min= 0/100

20>=90%

16>=80%

22>=70%

10>=60%

13<60%

Results: Satisfactory Performance Standard Achievement: Met

Recommendations: During the fall 2008 semester, the course had two main issues. First, the textbook selected for the class is normally used for advanced undergraduate and graduate classes in management information systems. Many students had trouble reading and understanding the textbook as well as using it to study for exams. Second, the class is numbered and sequenced for second year business, accounting, and information systems student; however, the course content requires student to understand topics that they have not covered in their business courses. Topics such as marketing, management, accounting, finance, and human resources are at the core of a management information systems course; therefore, students need at least an introductory level of understanding to grow in this MIS course.

Spring 2009

Results:

Project Proposal-

Average Grade = 80.33173

Max = 100/100

Min= 0/100

36>=90%

14>=80%

2>=70%

4>=60%

23<60%

Final Exam-

Average Grade = 66.37593

Max = 100/100

Min= 0/100

5>=90%

14>=80%

18>=70%

7>=60%

16<60%

Results: Satisfactory Performance Standard Achievement: Met

Recommendations: During the spring 2009 semester, the course continues to have an issue with sequencing causing students to struggle based of their lack of background in fundamental business courses such as marketing, management, accounting, finance, and human resources. To assist students with this a new curriculum proposal is being submitted to alter the course and change the sequence so that students will be required to take at least some of their fundamental business classes prior to enter this class.

Project Proposal
Fairmont State University
Fall(2008)

Due date for Project Proposal:

MWF classes – Friday, October 17- no later than the starting time of your class section

Reading Assignment:

The reading assignment is ongoing throughout the semester. The requirements for the reading assignment are defined at the end of the course syllabus. The syllabus is available through Blackboard Vista with the reading assignments listed in table form at the end of the syllabus.

Written Assignment Project Proposal:

All written assignments must be turned in or submitted through the assignment link in Blackboard.

Each student is to select a topic related to their major area of study and future profession. You can use your MIS textbook to assist with the selection of your topic. You are then to develop a two page proposal that demonstrates the following -

Introduction of the problem you have identified,

A brief discussion of what you have discovered about the history of the problem,

A brief discussion of where you will find information on your topic,

A summary of the plan that will allow you to develop the topic you are proposing into a full

research paper,

The third and final page of your proposal will be for your sources.

Your body of your proposal cannot be more than two double spaced pages in length. Your proposal will follow APA guidelines for style. During the librarian's visit he demonstrated and discussed how you can use the FSU library's website for assistance with information related to using the APA style.

All documents, spreadsheets, databases, and slide presentations must be completed using Microsoft's office suite of products. You should use Office Suite versions 2003 or 2007 only. These are the products that are in general use in the professional business world. The FSU campus has MS Office 2007 on all of its computers.

Writing a Research Proposal

The Proposal

A research proposal is the presentation of an idea that you wish to pursue. A good research proposal presumes that you have already thought about your project and have devoted some time and effort in gathering information, reading, and then organizing your thoughts. **A research proposal is NOT a project to be thrown together in one night with ideas off the top of your head.** Thus, one might say that the research proposal is a second step, following the selection of a broad topic.

The actual proposal will indicate what analytical question you wish to address. The foundation of a good research paper is a good research question. Just a tree needs a good root system to grow to be strong, a good research paper needs a good analytical question.

What does "analytical" mean? An analytical question can take different forms and no one form is necessarily better than others. What all analytical questions have in common is the fact that they are not merely descriptive. That is, an analytical question moves beyond the "what" and explores the "how," and the "why." A good analytical research paper will use "the what" as part of the answer to "the why." But it is obligatory to address a question beyond the "what." For example, a descriptive paper would ask: "What was Gorbachev's economic perestroika policies?" An analytical paper would ask: "Why did Gorbachev's economic perestroika policies fail?" As part of the paper, you would then review what the policies were, but then you would go beyond that description.

The specific parts of the research proposal are as follows:

1. Statement of the question your paper will answer. Again, remember, the point of your paper is to explain something.

2. Brief literature review in which you review the major works on your topic and indicate what the arguments are.

If you are applying a theory to an issue, you can review the theory used

The point is to show an awareness of what has been written on your issue, what evidence was used, what theories applied, and what arguments were made.

3. A statement as to what your argument/explanation will be.

4. A statement as to how your explanation/argument will differ from that which has been made by other authors. How is your explanation original or different?

If you applying a theory, you can explain which theory you will use and why you think that is the appropriate theory to explain the event(s) you are interested in.

5. A brief outline of the parts of the paper.

6. A short bibliography/statement as to the major sources you will use. This can include databases, websties, interviews, etc.

7. The proposal need not be long, but the quality should be high. I would think that 3-4 pages would be sufficient. The more effort you put into your proposal the better your paper will be. Also, the more detailed your proposal, the more I can comment and usefully guide you to a good paper.

8. You should have a proposal prepared and submitted to me No Later than one month after class begins. Start early; the earlier the better.

9. A proposal which does not follow directions is liable to be returned to you for you to re-do.

General Information on the Paper

The foundation of a good research paper is a good research question. Assuming you have your question well-defined, the comments below are intended to help you. If you don't have a question, it is imperative that you define one before beginning your research. *The paper is to be analytical, not descriptive.* So you **MUST** have a question around which the paper will be organized. Papers that do not address a research question are subject to being returned ungraded for you to re-do.

Your research paper is intended to be a semester-long project and will be graded as such; hence the early deadline for the outline. In other words, the amount of effort expended is a relevant consideration when evaluating the quality of the paper. Papers that are clearly "rush jobs" or that had been researched and written during the final weeks of the semester will be penalized accordingly.

Below are some general guidelines and instructions that may be of help; for questions relating to your specific paper feel free to consult with me.

1. Writing a research paper is a multi-step process. The biggest mistake people make is not allowing enough time. The process consists of at least four distinct phases: research (gathering materials), reading the materials, synthesis of the materials, and writing the paper. **You should start early:** most people underestimate how long the first three steps take. These three steps also directly influence the quality of the paper: they are its foundation. Without a strong foundation the paper cannot be strong.

2. In terms of the number of citations I expect, you should shoot for around 10-15 different sources, in some combination of books and academic journals. (Weekly magazines like Time, Newsweek, etc. are not considered academic journals. My experience is that it is necessary to

look at 2-3 sources for every one that is actually used, so in the course of researching your question you will look at about 30-45 separate items. **Required readings for the class do NOT "count" towards your total; HOWEVER, non-assigned readings from a required text may be used.** The point is to get you to expand your exposure by using outside sources.

3. There should be four distinct parts of the paper. The first part, the introduction, should spell out clearly for the reader what the paper is about and what you will do. In this part you should indicate the question you are exploring, the importance of the topic, what the parts of the paper will be, and a summary of your hypothesis or findings. **This then will serve as the organization for your paper and you should structure the paper accordingly.**

The second part of your paper is the literature review in which you review the major works on your topic and indicate what the arguments are. You will want to write this part so that your paper will add to the literature; that is, to be different and original in some way.

The third part (broadly speaking) is the body, or research you have conducted. And the fourth part is the conclusion, summarizing what you have found and what your answer is to the question you have posed. For organizational purposes, in the body of the paper I like to use sections to divide the paper. **I have placed on my website an example of a paper I wrote which uses sections to divide the paper. YOU ARE TO CONSULT THIS ARTICLE AND TO USE SECTIONS TO ORGANIZE YOUR PAPER.**

4. You have three options for notes to the paper: notes in the text, notes at the bottom of the page, and notes at the end of the paper. I don't care which option you choose (option one is the easiest and most convenient) but in any case the format **must be correct. Failure to render notes in correct format will lower the paper grade by one-half grade.** If you have questions as to correct note format, consult Kate Turabian, A Manual for Writers, which is widely available at new and used bookstores. IF YOU DECIDE TO PUT SOURCES IN THE TEXT, THEN IT SHOULD LOOK LIKE THIS: (SMITH, 1992, 36). NOTE: THE PERIOD GOES AT THE END OF THE SOURCE, NOT THE END OF THE SENTENCE. BE SURE TO INCLUDE THE YEAR THE SOURCE WAS PUBLISHED AS WELL.

5. The paper is to have a title page, indicating the title of the paper, the course, and your name. I also want you to **attach your original proposal to the final paper.**

6. The paper is to have a bibliography, rendered in correct format. Failure to either include a bibliography or, formatting the bibliographical entries incorrectly, will result in a **penalty of one-half grade.**

7. The paper is to be typed, double-spaced using normal margins, spell-checked, and grammatically correct. YOU SHOULD STAPLE THE PAGES TOGETHER UNLESS YOU WANT ME TO LOSE PART OF YOUR PAPER.

8. NUMBER YOUR PAGES, BEGINNING WITH PAGE TWO, WHICH FOLLOWS THE TITLE PAGE. IN OTHER WORDS,THE FIRST PAGE IS THE TITLE PAGE WHICH IS NOT NUMBERED, AND THEN FIRST PAGE OF TEXT WILL BE PAGE TWO.

9. The paper should use normal font size (12 point) and use regular print (no bold print.

10. For questions about any of the above, or specific questions about your paper, feel free to consult with me during my office hours.

Where People Lose Points

A number of common errors result in the loss of points. Thus, you should pay attention to these pointers to avoid that happening to you.

1. A badly written paper will mask even good research. Leave time to do at least two drafts. DO NOT TURN IN A FIRST DRAFT.

2. A paper that does not follow directions, that is, one that is purely descriptive instead of analytical, does not fulfill the assignment. Therefore, FOLLOW THE DIRECTIONS THAT HAVE BEEN GIVEN TO YOU, AND IF YOU DON'T UNDERSTAND, THEN ASK.

3. A paper that does not use the correct format for note and bibliography loses points. Again, I don't care what system you use, but do it correctly. There are numerous guides to consult, and you can always ask me. I consider the failure to render the correct format as laziness, for which there is no excuse.

Final Project Grading Rubric

Criteria	15	17.5	20	22.5	25
Thoroughness & Coverage	Hardly covers any of the major relevant issues	Covers some of the major relevant issues	Reasonable coverage of the major relevant areas	Thorough coverage of almost all of the major relevant issues	Exceptionally thorough coverage of all major relevant issues
Depth, Understanding & Insight	Lack of understanding of, or lack of insight into material	Some understanding of material	Good overall understanding of material	Very good overall understanding of material, with some real depth	Excellent, deep understanding of material and its inter-relationships
Relevance & Significance	Focus is off topic or on insubstantial or secondary issues	Only some of the content is meaningful and on topic	Generally the content is reasonably meaningful and on-topic	Most of the content is meaningful and on-topic	All of the content is meaningful and on-topic content
Persuasiveness & Clarity	Disorganized or hard-to-understand presentation	Some parts of the presentation are disorganized or hard to understand	Generally organized and clear	Very good overall organization, clear and consistent arguments	Exceptionally clear, organized and persuasive presentation of ideas
Creativity & Innovativeness	Little significant or reasonably backed creative or innovative points-of-view or ideas	Few creative and innovative ideas or points-of-view that are reasonable & are backed by some analysis	Most ideas are creative and innovative or demonstrate points-of-view that are reasonable & are backed by analysis	Very good creative, and innovative ideas or points-of-view that are perceptive & are backed by strong analysis	Outstanding, creative, and innovative ideas or points-of-view that are perceptive & are backed by very strong analysis
Utilization of Source Materials	No useful references, or weak references with incorrect details or applicability	Weak use of source material and/or some details or applicability is incorrect	Some good references applied usefully	References indicate strong research used well	References indicate exceptional research used persuasively

Fall 2008 Assignment 2

Chapter 3 – First, you are to identify what you might use a computer to do. A good starting point is to determine how a computer will be used once it is yours! Since a computer is an investment that requires a substantial monetary outlay as well as lasting you for three years or more your determination of use should look ahead and cover this future timeframe

Second, using the information from chapter three as a guide you are to find a computer vendor's website over the internet and identify the specifications for a computer that will meet your needs (you are not to buy the computer). Once you have identified the all of the specifications for the machine you select you are to write an explanation justifying your selection of each component within your list of specifications.

When you have completed the assignment, you must upload the specification list from the vendors/manufactures website and your written justification for each line item with the specification list to Blackboard.

.The list below is the minimum number and type of Items you must consider; however, in no way should you regard this list as the only items you could consider. You may find many additional items to consider. Just remember all items on your list must have a written justification.

Processor
Memory
Display, Screen, or monitor type-pay close attention to your options and what the specification in the list states.
Operating System
Mouse
Keyboard
Video card
RAM Memory
Cache Memory
Hard drive
Internal optical drives
Network interface card
Wireless cards
Web cam
Battery
Sound cards
Antivirus and firewall software
Power and docking options
Backup drive

Spring 2009 Assignment 3 Questions

USING YOUR KNOWLEDGE

1. *Apply the value chain model to a retailer such as Target (http://www.target.com). What is its competitive strategy? Describe the tasks Target must accomplish for each of the primary*

value chain activities. How does Target's competitive strategy and the nature of its business influence the general characteristics of Target's information systems?

2. *Apply the value chain model to a mail-order company such as L.L. Bean (http://www.llbean.com). What is its competitive strategy? Describe the tasks L.L. Bean must accomplish for each of the primary value chain activities. How does L.L. Bean's competitive strategy and the nature of its business influence the general characteristics of its information systems?*

3. *Suppose you decide to start a business that recruits students for summer jobs. You will match available students with available jobs. You need to learn what positions are available and what students are available for filling those positions. In starting your business, you know you will be competing with local newspapers, "Craig's List" (www.craigslist.org), and with your college. You will probably have other local competitors as well.*

   a. *Analyze the structure of this industry according to Porter's five forces model.*

   b. *Given your analysis in a, recommend a competitive strategy.*

   c. *Describe the primary value chain activities as they apply to this business.*

   d. *Describe a business process for recruiting students.*

   e. *Describe information systems that could be used to support the business process in d.*

   f. *Explain how the process you describe in part d and the system you describe in e reflect your competitive strategy.*

4. *Consider the two different bike rental companies in Figure 3-9. Think about the bikes that they rent. Clearly, the student bikes will be just about anything that can be ridden out of the shop. The bikes for the business executives, on the other hand, must be new, shiny, clean, and in tip-top shape.*

   a. *Compare and contrast the operations value chains of these two businesses as they pertain to management of bicycles.*

   b. *Describe a business process for maintaining bicycles for both businesses.*

Andrew Jones

Info Systems 2200

MWF 10-10:50

Assignment #2

1. The vender I chose was Dell. I will be using a desktop computer for gaming and fantasy sports.
2. I would be using the following as needed:

Processor- Intel Core Duo, the best processor on the market and this will prevent my games from freezing.

Memory- I want 4 GB so it will be able to hold all the memory of my games with good quality.

Display, Screen, or monitor type-pay close attention to your options and what the specification in the list states.- I want two 22" duel screen monitor s so I can see more of a variety graphics.

Operating System-I would use windows vista because it allows you to move through programs and toolbars faster.

Mouse- I would choose wireless because I don't want the hassle of a chord.

Keyboard- I would also have a wireless because I would want to be able to move away from my computer and not be close up to games.

Video card- g-force because it's top rated in video game play.

RAM Memory-I would use an extra GB to help my computer move faster.

Cache Memory- I would need whatever is standard for this just for extra storage.

Hard drive- I would have 750GB with two fans to help keep the hard drive cool so it won't over heat.

Internal optical drives-I would get DVD-ROM Drive & DVD+/-RW to burn disks.

Network interface card- I would need one to support high speed internet.

Wireless cards- just the basic wireless card like net gear or link system.

Web cam- I added the webcam feature to see friends I'm playing against.

Battery – wouldn't be needed because it's a desktop.

Sound cards- I would just need the basic sound card.

Antivirus and firewall software- I would choose Norton Antivirus because it runs scans every week to check for viruses.

Power and docking options- I would just buy a surge protector to keep from data loss.

Backup drive- I'm going to just get an external backup of 120 gigs just in case I needed to store something fast.

Assignment 3
Fairmont State University
Spring 2009

Due date: MWF classes – Monday, February 16- no later than the starting time of your class section

Reading Assignment:

The reading assignment is ongoing throughout the semester. The requirements for the reading assignment are defined at the end of the course syllabus. The syllabus is available through Blackboard Vista with the reading assignment listed in table form at the end of the syllabus.

It is each student's responsibility to attend class prepared to participate in the discussion. This means that each of must read the chapters and other assigned material. If it is discovered that you are not reading the assigned material regular class quizzes will be added to the syllabus.

Written Assignment 3

Chapter 4 Using Your Knowledge (pgs. 135 and 136) questions 1, 2, 3, and 4

When answering a question in this class a Yes, No, True, or False answer is not acceptable and will be marked as incorrect. You must fully explain your answers to receive a full credit. This will require more than a single sentence.

All documents, spreadsheets, databases, and slide presentations must be completed using Microsoft's office suite of products. You should use Office Suite versions 2003 or 2007 only. These are the products that are in general use in the professional business world. The FSU campus has MS Office 2007 on all of its computers.

Travis Zimmerman

Assignment 3
Fairmont State University
Spring 2009

Chapter 4 Using Your Knowledge

Comment [JCB1]: In general many of your answers do not give specific recommendations that someone without prior knowledge could use.

Comment [JCB2]: This answer is to general. You need to use the information given in your discussion.

1. a. The difference in the processor capability is the amount of gigahertz that each computer has. Also, the computer that costs $729 has more megabytes than the others.

   b. The only difference in the main memory capability is that the computer that costs $729 has 512 megabytes of SDRAM.

   c. The hard drive for the computers that cost $989 has 160 gigabytes and runs at 7200 rpm. Then the computers that cost $900 and $729 has 80 gigabytes and also runs at 7200 rpm. The difference in the hard drives for these computers is just that the first computer has more gigabytes than the others at 160 GB.

   d. The difference in the optical drives of the four computers is the first computer does not have any type of CD-RW when the other three do. Also, the first computer runs only at 8X when the other three run at 48X. Also, the fourth computer does not have a DVD-RW drive.

   e. The operating system that the four computers are using and have loaded on them is Genuine Windows Vista Business, which is used among the leading businesses and very user friendly.

   f. One computer that I found to compare with the first computer was the Inspiron 530. The Inspiron 530 is a little cheaper but has some of the same specifications that the other computers do in the ad.

2. a. If I were helping my roommate buy a computer for his personal use I would recommend 1 GB of memory and the CPU that I would recommend would be Intel Core 2 Duo E8400 3.0 GHz Dual Core Processor.

   b. The software that I would recommend would be to get Microsoft Office 2007 and Microsoft Outlook for sending and receiving emails.

   c. The best deal that I could find was from Lenova which all the information is a Lenovo 3000 H Series H200-H1011/M19 (57091128) 19" Wide LCD Intel Atom 230 (1.6GHz) 1GB DDR2 160GB Intel GMA 950 Windows Vista Home Basic. The price for all this is only $399.99, which also comes with a 1-year warranty.

   d. I would recommend the computer that I described in question c because of the fact of the disk specification and the fact that she is getting the Windows Vista Home Basic which would be perfect for what she is looking to do with her computer. Also for the price she is getting a nice LCD screen and she also has the recommended 1GB that she would only need.

3. a. The memory that I would recommend for what he is looking to do would be about 4 GB of memory and the CPU that I would recommend would be Intel Core 2 Duo E8400 3.0 GHz Dual Core Processor.

Assignment 3
Fairmont State University
Spring 2009

b. The software that I would recommend for my dad to use for the use that he is going to use the computer for would be Microsoft Picture It! 2.0.

c. The best computer deal that I could find was from HP. The computer that I found was HP TouchSmart IQ816(FK783AA) All-in-one PC 2S.5" Touch-enabled widescreen LCD Core 2 Duo T8100(2.10GHz) 4GB DDR2 750GB NVIDIA GeForce 9600M GS Windows Vista Home Premium 64-bit.

d. I recommended the computer that I described in c because of the media inputs and output specifications and it also has the size of 4GB that I also recommended.

4. a. –Microsoft Access 2007: it is a relational database management system and Access stores data in its own format based on the Access Jet Database Engine.

One Note: it is a software package for free-form information gathering, and multi-user collaboration.

Vista business edition: it is the first Windows operating system designed specifically to meet the needs of small businesses. It helps your entire business work more effectively, stay connected.

SharePoint Designer: is a WYSIWYG HTML editor and general web design program from Microsoft.

Web Expressions: is a suite of design and media applications from Microsoft aimed at developers and designers.

Microsoft Project 2007: is a project management software program developed and sold by Microsoft which is designed to assist project managers in developing plans, assigning resources to tasks, tracking progress, managing budgets and analyzing workloads.

Visual Studio Developer: is an integrated development environment (IDE) from Microsoft. It can be used to develop console and graphical user interface applications along with Windows Forms applications.

SQL Server 2005: is a relational database management system.

Visio: is diagramming software for Microsoft Windows. It uses vector graphics to create diverse diagrams.

b. The operating systems are SQL Server, Visio, Visual Studio Developer, and Web Expressions. The Application programs are Access 2007, Microsoft Project 2007, Windows 2003 Server, SharePoint Designer, and One Note.

c. The program of these that is a DBMS product is SQL Server 2005.

d. The program that I should download tonight would be Microsoft Access 2007.

Assignment 3
Fairmont State University
Spring 2009

e. I am going to choose reason number 2 in the fact that personally I don't use a lot of Access and when I do I like to use the old Microsoft Access 2003 because of my familiarity with the program. I really am not a fan of the new Microsoft Office programs because of the fact that I got so use to the old one and I feel that they are user friendly.

f. Yes, because it allows for multiple OS platforms and scripting languages of Microsoft's many applications.

Chapter 3 Written Assignment Info 2200- MWF 10:00 – 10:50 Eric Moury

I will be using my new computer mostly for application software. I don't do any gaming, but I will store music and family video on another hard drive on this computer. My basic use is Microsoft Office programs, Internet Explorer, and I tunes.

My Components
Black Bezel Chassis
Intel® Core™2 Q6600 Quad-Core (8MB L2 cache,2.40GHz,1066FSB) – Willhelp run application software and music at the same time.
Genuine Windows Vista® Home Premium Service Pack 1
2GB Dual Channel DDR2 SDRAM at 800MHz - 2 DIMMs – Music and family video
500GB Data Security RAID 1 (2 x 500GB SATA 3Gb/s 7200 RPM HDDs) – This hard drive to store pictures and music
500GB - 7200RPM, SATA 2 3.0Gb/s, 16MB Cache – Hard drive from software and programms
Single Drive: 16X CD/DVD burner (DVD+/-RW) w/double layer write capability – Be able to record family video
Dell SP2009W 20" Widescreen Flat Panel Monitor with Webcam – We will be able to record family video
ATI Radeon HD3870 512MB GDDR4
Integrated 7.1 Channel Audio
Bose Companion 3 , 2.1 Stereo Audio – To play I tunes and have a great sound
Dell USB Keyboard
Dell Optical USB Mouse
My Software & Accessories
McAfee SecurityCenter 15-months
Microsoft Works 9.0
My Service
1Yr Ltd Hardware Warranty, InHome Service after Remote Diagnosis
Dell Online Backup 2GB for 1 year – Another back up of music and bank records
Also Includes
Adobe® Acrobat® Reader 9.0 Multi-Language
Windows Vista™ Premium

Fall 2008 Assignment 2

Chapter 3 – First, you are to identify what you might use a computer to do. A good starting point is to determine how a computer will be used once it is yours! Since a computer is an investment that requires a substantial monetary outlay as well as lasting you for three years or more your determination of use should look ahead and cover this future timeframe

Second, using the information from chapter three as a guide you are to find a computer vendor's website over the internet and identify the specifications for a computer that will meet your needs (you are not to buy the computer). Once you have identified the all of the specifications for the machine you select you are to write an explanation justifying your selection of each component within your list of specifications.

When you have completed the assignment, you must upload the specification list from the vendors/manufactures website and your written justification for each line item with the specification list to Blackboard.

.The list below is the minimum number and type of Items you must consider; however, in no way should you regard this list as the only items you could consider. You may find many additional items to consider. Just remember all items on your list must have a written justification.

Processor
Memory
Display, Screen, or monitor type-pay close attention to your options and what the specification in the list states.
Operating System
Mouse
Keyboard
Video card
RAM Memory
Cache Memory
Hard drive
Internal optical drives
Network interface card
Wireless cards
Web cam
Battery
Sound cards
Antivirus and firewall software
Power and docking options
Backup drive

Spring 2009 Assignment 3 Questions

USING YOUR KNOWLEDGE

1. *Apply the value chain model to a retailer such as Target (http://www.target.com). What is its competitive strategy? Describe the tasks Target must accomplish for each of the primary*

value chain activities. How does Target's competitive strategy and the nature of its business influence the general characteristics of Target's information systems?

2. *Apply the value chain model to a mail-order company such as L.L. Bean (http://www.llbean.com). What is its competitive strategy? Describe the tasks L.L. Bean must accomplish for each of the primary value chain activities. How does L.L. Bean's competitive strategy and the nature of its business influence the general characteristics of its information systems?*

3. *Suppose you decide to start a business that recruits students for summer jobs. You will match available students with available jobs. You need to learn what positions are available and what students are available for filling those positions. In starting your business, you know you will be competing with local newspapers, "Craig's List" (www.craigslist.org), and with your college. You will probably have other local competitors as well.*

   a. *Analyze the structure of this industry according to Porter's five forces model.*

   b. *Given your analysis in a, recommend a competitive strategy.*

   c. *Describe the primary value chain activities as they apply to this business.*

   d. *Describe a business process for recruiting students.*

   e. *Describe information systems that could be used to support the business process in d.*

   f. *Explain how the process you describe in part d and the system you describe in e reflect your competitive strategy.*

4. *Consider the two different bike rental companies in Figure 3-9. Think about the bikes that they rent. Clearly, the student bikes will be just about anything that can be ridden out of the shop. The bikes for the business executives, on the other hand, must be new, shiny, clean, and in tip-top shape.*

   a. *Compare and contrast the operations value chains of these two businesses as they pertain to management of bicycles.*

   b. *Describe a business process for maintaining bicycles for both businesses.*

c. *Describe a business process for acquiring bicycles for both businesses.*

d. *Describe a business process for disposing of bicycles for both businesses.*

e. *What roles do you see for information systems in your answers to the earlier questions? The information systems can be those you develop within your company or they can be those developed by others, such as "Craig's List."*

EXAM 2_Spring 2009

Exam II

Demo Student

Started: September 2, 2009 4:50 PM

Questions: 50

1.
(Points: 2)

_____ software are programs that control the computer's resources.

- a. Operating system
- b. Vertical-market software
- c. Application
- d. Firmware

Save Answer

2.
(Points: 2)

_____ software consists of programs that perform business functions like general ledger and accounting.

a. Operating system

b. Application

c. Firmware

d. Vertical-market software

Save Answer

3.
(Points: 2)
Monitors display images by illuminating a grid of dots called _____ on the screen.

a. bits

b. pixels

c. dot pitch

d. data busses

Save Answer

4.
(Points: 2)
A _____ is a virus that disguises itself as a program or game and secretly delivers a payload.

a. Trojan horse

b. worm

c. macro

d. time bomb

Save Answer

5.
(Points: 2)

If your computer is slow in loading large image files, it is likely that you need to upgrade the computer's:

- a. data transfer rate.
- b. main memory.
- c. anti-virus software.
- d. data bus.
- e. patch.

Save Answer

6.
(Points: 2)

Main memory contains data and instructions for the _____ program, which controls the computer's resources.

- a. memory swap
- b. cache
- c. operating system
- d. RAM
- e. bus

Save Answer

7.
(Points: 2)
The surface of _____ disks is treated so that it can reflect light to represent binary data.

- a. magnetic
- b. network
- c. storage
- d. optical

Save Answer

8.
(Points: 2)
Which device listed below is an example of a processing hardware device?

- a. bar code scanner
- b. main memory
- c. printer
- d. keyboard
- e. microphone

Save Answer

9.
(Points: 2)
_____ is designed to increase the overall throughput of the CPU.

a. Main memory

b. Cache memory

c. Seek time

d. Volatile memory

e. Non-volatile memory

Save Answer

10.
(Points: 2)

A _____ is a virus that replicates itself over the Internet and other networks.

a. macro

b. time bomb

c. Trojan horse

d. worm

Save Answer

11.
(Points: 2)

_____ are commands that CPU can process. And may be specific for each processor type.

a. Application programs

b. Instruction sets

c. Processor chips

d. Software programs

Save Answer

12.
(Points: 2)
The quickest and least risky option for software buying is the tried and true _____.

a. off-the-shelf

b. tailor-made

c. custom-developed

d. off-the-shelf with alterations

Save Answer

13.
(Points: 2)
One _____ is equivalent to 1024 GB.

a. terabyte

b. megabyte

c. kilobyte

d. gigabyte

e. gigaflop

Save Answer

14.
(Points: 2)

The _____ of a CPU is measured in hertz.

- a. data bus
- b. dot pitch
- c. seek time
- d. clock speed
- e. size

Save Answer

15.
(Points: 2)

A loosely coupled group of volunteer programmers that contribute code to develop and maintain software are called _____.

- a. Volunteer Programmers of America
- b. Linux
- c. licensed volunteer community
- d. open source community

Save Answer

16.
(Points: 2)

_____ is by the far the most popular type of memory device.

- a. RAM module
- b. Magnetic disk
- c. CD
- d. DVD
- e. Optical disk

Save Answer

17.
(Points: 2)

The _____ system manages the computer's resources.

- a. software
- b. operating
- c. information
- d. application

Save Answer

18.
(Points: 2)

The operating system employs _____ so that users can run multiple applications and files at the same time.

- a. memory swapping
- b. seek time

c. patches

d. rotational delay

e. main memory

Save Answer

19.
(Points: 2)

To keep from getting a virus on your computer, be sure to never download files, programs, or attachments from _____ Web sites.

a. unknown

b. private

c. hijacked

d. commercial

e. pirated

Save Answer

20.
(Points: 2)

_____ is generally regarded as one of the more difficult operating systems to learn to use.

a. WinXP

b. MacOS

c. Linux

d. Unix

Save Answer

21.
(Points: 2)
The CPU works in conjunction with the _____.

a. special function card

b. main memory

c. Intel

d. dual processor

Save Answer

22.
(Points: 2)
A _____ virus attaches itself to Word, Excel, or other type of documents.

a. macro

b. time bomb

c. worm

d. Trojan horse

Save Answer

23.
(Points: 2)
_____ software is processed on client computers.

a. Server operating system

b. Client application programs

c. Server application programs

d. Client operating system

Save Answer

24.
(Points: 2)
Data in the CPU is processed in the form of:

a. bytes.

b. bits.

c. dots.

d. pixels.

Save Answer

25.
(Points: 2)
Which device listed below is an example of a storage hardware device?

a. mouse

b. bar code scanner

c. optical disk

- d. keyboard
- e. printer

Save Answer

26.
(Points: 2)
Data moves between components on the motherboard via the:

- a. data application.
- b. CPU.
- c. data bus.
- d. instruction set.
- e. main memory.

Save Answer

27.
(Points: 2)
_____ software is developed for a specific, unique need.

- a. Operating system
- b. Horizontal-market
- c. One-of-a-kind application
- d. Vertical-market

Save Answer

28.
(Points: 2)
Which device listed below is an example of an output hardware device?

- a. microphone
- b. mouse
- c. keyboard
- d. printer
- e. bar code scanner

Save Answer

29.
(Points: 2)
A computer monitor would be an example of:

- a. a DSS.
- b. spaceware.
- c. data.
- d. software.
- e. hardware.

Save Answer

30.
(Points: 2)

A virus delivers a(n) _____ when its program deletes programs and data.

- a. MB
- b. packet
- c. bomb
- d. worm
- e. payload

Save Answer

31.
(Points: 2)

A collection of servers called a _____ coordinates the activities of hundreds of users.

- a. Collective
- b. Microsoft
- c. Web farm
- d. Server farm

Save Answer

32.
(Points: 2)

The _____ the dot pitch, sharper and brighter the screen image will be.

- a. brighter
- b. larger

c. higher definition

d. more contrasting

e. smaller

Save Answer

33.
(Points: 2)

_____ is a special CPU and memory that stores and processes video images.

a. CRT

b. LCD monitor

c. video processor

d. Optimal resolution

Save Answer

34.
(Points: 2)

_____ software is installed in special, read-only memory in devices like printers or communication devices.

a. Firmware

b. Application

c. Operating system

d. Vertical-market

Save Answer

35.
(Points: 2)
Hardware includes all of the following except:

- a. motherboards.
- b. monitors.
- c. printers.
- d. CPUs.
- e. instruction sets.

Save Answer

36.
(Points: 2)
Every monitor has a(n) _____ which is the size of the pixel grid that will give the best sharpness and clarity.

- a. data channel
- b. dot pitch
- c. optimal resolution
- d. switch
- e. bus width

Save Answer

37.

(Points: 2)

A bar code scanner would be an example of a(n):

- a. storage device.
- b. output device.
- c. processing device.
- d. input device.

Save Answer

38.

(Points: 2)

Software vendors should make it easier for users to download and apply _____ to fix known holes in their software.

- a. repairs
- b. viruses
- c. encryption keys
- d. patches
- e. bugs

Save Answer

39.

(Points: 2)

A grocery scanning checkout system would be an example of:

- a. horizontal-market software.

- b. firmware.
- c. system software.
- d. operating system software.
- e. vertical-market software.

Save Answer

40.
(Points: 2)
RAM is an example of:

- a. hardware.
- b. volatile memory.
- c. cache memory.
- d. LCD.
- e. non-volatile memory.

Save Answer

41.
(Points: 2)
A _____ holds more than 300 GB and is good backing up files.

- a. RAM module
- b. DVD
- c. magnetic disk

d. CD

e. ROM module

Save Answer

42.
(Points: 2)
When a user opens a new program, the CPU may make a _____ and move a block of unused data to make room for the one just called up.

a. volition

b. bus

c. memory swap

d. data channel

Save Answer

43.
(Points: 2)
When one buys an operating system like WinXP, you are actually buying a software:

a. upgrade.

b. license.

c. version.

d. copyright.

Save Answer

44.
(Points: 2)
The Apple operating system is called _____.

- a. Linux
- b. Mac OS
- c. Unix
- d. Windows
- e. Sun

Save Answer

45.
(Points: 2)
A bit has a value of:

- a. 0.
- b. 1.
- c. 0 or 1.
- d. 1024.
- e. 1001010.

Save Answer

46.
(Points: 2)
A spreadsheet program would be an example of:

- a. operating system software.
- b. horizontal-market software.
- c. system software.
- d. firmware.
- e. vertical-market software.

Save Answer

47.
(Points: 2)

Windows only works with _____ from Intel and companies who comply with the Intel instruction set.

- a. processors
- b. Linux
- c. software
- d. applications

Save Answer

48.
(Points: 2)

Linux is an example of:

- a. open-source software.
- b. horizontal-market software.

c. an application.

d. vertical-market software.

Save Answer

49.
(Points: 2)
Which device listed below is not an example of an input hardware device?

a. microphone

b. bar code scanner

c. keyboard

d. printer

e. mouse

Save Answer

50.
(Points: 2)
Volatile memory _____ data when the power is turned off.

a. loses

b. backs up

c. saves

d. corrects

e. removes

Save Answer

Artifacts for OUTCome 2200.4

Final Exam Spring 09

Demo Student

Started: September 2, 2009 4:55 PM

Questions: 50

1.
(Points: 2)

B2B refers to e-commerce sales between:

- a. departments.
- b. bands of consumers.
- c. companies.
- d. industries.

Save Answer

2.
(Points: 2)

In a B2G e-commerce model a company sells to:

- a. consumers.
- b. the government.
- c. a department.
- d. other companies.

e. a group of partners.

Save Answer

3.
(Points: 2)

A mark of the improved market efficiency of e-commerce is that it often leads to _____, which is the elimination of the middle layers in the supply chain.

a. new economy effect

b. disintermediation

c. a bullwhip effect

d. price elasticity

Save Answer

4.
(Points: 2)

E-commerce also improves the flow of _____ so users can more actively compare vendors.

a. processes

b. the supply chain

c. price information

d. financial flows

Save Answer

5.

(Points: 2)

Sellers in e-commerce can more easily measure price _____ by measuring the amount that demand rises or falls with changes in price.

- a. elasticity
- b. distribution
- c. accountability
- d. sensitivity

Save Answer

6.
(Points: 2)

Most common server applications use a _____ architecture.

- a. multi-tier
- b. client/server
- c. two-tier
- d. three-tier

Save Answer

7.
(Points: 2)

In a three-tier server architecture, computers on the _____ tier have browsers loaded on them that request and process Web pages.

- a. user

b. application

c. database

d. commerce

e. server

Save Answer

8.
(Points: 2)

The _____ tier of the three-tier server architecture is where the computers that process applications reside.

a. commerce

b. client

c. user

d. database

e. server

Save Answer

9.
(Points: 2)

The _____ tier of the three-tier server architecture is where the computer receives and processes SQL requests to retrieve and store data.

a. user

b. server

c. commerce

d. client

e. database

Save Answer

10.
(Points: 2)

A _____ is a program that processes the HTTP protocol; receives, displays and processes HTML documents, and transmits responses.

a. server script

b. GUI

c. Java script

d. browser

Save Answer

11.
(Points: 2)

When you go to check out and pay for your goods on an e-commerce site, a program will be called from the _____ server to process your payment.

a. commerce

b. database

c. user

d. server

Save Answer

12.
(Points: 2)
HTML is used to:

- a. structure data more efficiently.
- b. exchange Web pages over the Internet.
- c. communicate with the supply chain partners.
- d. define the structure and layout of Web pages.

Save Answer

13.
(Points: 2)
Like HTML, all markup languages use _____ in order to define data elements for display and other purposes.

- a. attributes
- b. quotes
- c. brackets
- d. tags

Save Answer

14.
(Points: 2)
A Web farm is a facility that runs multiple Web:

- a. companies.
- b. systems.
- c. applications.
- d. servers.

Save Answer

15.
(Points: 2)
HTML is:

- a. the Web programming language of the future.
- b. a type of Web server.
- c. the most popular Web programming language.
- d. a common Web protocol.

Save Answer

16.
(Points: 2)

_____ occur when you combine the outputs from two or more Web sites into a single user experience.

- a. Bullwhips
- b. Mashups
- c. Viral marketing
- d. Beta programs

Save Answer

17.
(Points: 2)

The term "supply chain" is misleading, because in reality, it is more of a _____ of many partners both up and down the supply chain.

- a. network
- b. suite
- c. collection
- d. string

Save Answer

18.
(Points: 2)

The _____ is a natural dynamic that occurs because of the multistage nature of supply chains.

- a. random variation
- b. reorder quantity change
- c. interorganizational information
- d. bullwhip effect

Save Answer

19.
(Points: 2)

In order to eliminate the bullwhip effect, you can give all participants access to _____.

- a. customer lists
- b. consumer-demand information
- c. fluctuations
- d. distributor information

Save Answer

20.
(Points: 2)

SRM software is especially useful for finding and assessing:

- a. competitors.
- b. partners.
- c. vendors.
- d. potential sources of competitive advantage.

Save Answer

21.
(Points: 2)

_____ is a business process for managing all contacts between an organization and its suppliers.

- a. SRM
- b. HTTP

c. EDI

d. CRM

e. ERP

Save Answer

22.
(Points: 2)

With respect to Porter's value chain model, SRM supports both the inbound logistics portion of the primary activities and the _____ support activity.

a. Accounting

b. Infrastructure

c. Procurement

d. HR planning

Save Answer

23.
(Points: 2)

SRM is a _____ system.

a. functional

b. support

c. cross-functional

d. isolated

Save Answer

24.
(Points: 2)

Ideally, the SRM system of a purchaser should have an interface with the _____ system of the seller, so that recurring purchases can be automated.

- a. SRM
- b. CRM
- c. server
- d. EDI
- e. HTML

Save Answer

25.
(Points: 2)

One of the major SRM activities is to _____.

- a. set
- b. settle
- c. support
- d. supervise

Save Answer

26.
(Points: 2)

Long-term supply chain partner relationships are based on honesty and _____ behavior.

- a. required
- b. secure
- c. comical
- d. ethical
- e. legal

Save Answer

27.
(Points: 2)

If you notice that one of your supply chain partners has a security hole in their inventory system, it is _____ to write a program that would exploit that hole.

- a. legal
- b. illegal
- c. anti-social
- d. ethical

Save Answer

28.
(Points: 2)

In sharing information with supply chain partners, _____ should be a major concern.

- a. details
- b. complexity

c. strategy

d. security

Save Answer

29.
(Points: 2)

_____ is the electronic sharing of common business documents using a standard format.

a. HTTP

b. CRM

c. SRM

d. EDI

e. HTML

Save Answer

30.
(Points: 2)

_____ is a standard of formats for common business documents.

a. EDI

b. CRM

c. HTTP

d. HTML

e. SRM

Save Answer

31.
(Points: 2)

EDI and _____ are the two main alternatives for exchanging data and business documents over the Internet to support standard business transactions.

- a. XML
- b. HTML
- c. HTTP
- d. remote computing
- e. HIPAA

Save Answer

32.
(Points: 2)

Web pages are transmitted over the Internet using:

- a. XML.
- b. EDI.
- c. HTTP.
- d. application software.
- e. RFID.

Save Answer

33.
(Points: 2)

There are inherent problems in using HTML as a means of sharing standard business documents because:

- a. it mixes the content, structure, and format of a document.
- b. it has an unlimited number of tags.
- c. it is hard to learn.
- d. it is inflexible.

Save Answer

34.
(Points: 2)

In the future, the common language of the Internet will likely be:

- a. Esperanto.
- b. Java.
- c. Spanglish.
- d. XML.
- e. HTML.

Save Answer

35.
(Points: 2)

The idea of an XML document is that we can digitally separate the content, formatting, and the:

a. markup.

b. document model.

c. structure.

d. relationships.

Save Answer

36.
(Points: 2)

With its ability to easily move data from one database application to another, _____ may one day even replace relational databases.

a. Visual Basic

b. Java

c. XML

d. HTML

Save Answer

37.
(Points: 2)

With its ability to easily move data from one database application to another, _____ may one day even replace relational databases.

a. Visual Basic

b. HTML

c. XML

d. Java

Save Answer

38.
(Points: 2)
An XML schema is a special document that defines the _____ of another XML document.

a. formatting

b. security

c. content

d. protocols

e. structure

Save Answer

39.
(Points: 2)
_____ solves many of the problems which developers had with HTML.

a. XML

b. WWW

c. W3C

d. Schema

Save Answer

40.
(Points: 2)

The _____ sponsors the development and dissemination of Web standards.

- a. XML
- b. W3C
- c. IEEE
- d. WWW

Save Answer

41.
(Points: 2)

For XML applications, an XML _____ is written so that it can be used to validate XML documents.

- a. wrapper
- b. file
- c. table
- d. tag
- e. schema

Save Answer

42.
(Points: 2)

The process of a program on one computer accessing programs on another computer is called _____.

- a. Proprietary computing
- b. Distributed computing
- c. EDI
- d. XML
- e. SOA

Save Answer

43.
(Points: 2)

The process of a program on one computer accessing programs on a second computer is called _____ computing.

- a. application sharing
- b. peer-to-peer
- c. remote
- d. shared
- e. e-commerce

Save Answer

44.
(Points: 2)

_____ solutions are owned by the organizations that develop and pay for the distributed system.

- a. Proprietary

b. Remote

c. Distributed

d. SOA

e. Bullwhip

Save Answer

45.
(Points: 2)

_____ would be an example of using an information system to gain competitive advantage.

a. Using PowerPoint for company presentations

b. Printing internal reports in color

c. Using instant messaging while at work

d. Developing a Web service to share information with a supply chain partner

e. Automating the general ledger system

Save Answer

46.
(Points: 2)

_____ are a set of standards that facilitate distributed computing.

a. HTML

b. Web services

c. SOA

d. Service descriptions

Save Answer

47.
(Points: 2)

_____ provide a standardized way for programs to access each other remotely, without the need of proprietary solutions.

a. SOA

b. Web services

c. XML

d. Service descriptions

Save Answer

48.
(Points: 2)

Any information not directly related to a meeting with potential partners in an interorganizational information system project should be carefully guarded because it is possible that today's partner could be tomorrow's:

a. employers.

b. competitors.

c. supporters.

d. suppliers.

Save Answer

49.
(Points: 2)

It is important to have _____ in place when trying to develop an interorganizational system.

- a. hardware and software
- b. security checks
- c. collaboration agreements
- d. financing

Save Answer

50.
(Points: 2)

_____ is responsible for the real revnue in the suppy chain.

- a. manfuctures
- b. mid-tier supplier
- c. a host of financial suppliers
- d. consumers

Save Answer

Program Assessment for INFO 2235-Fall 2008 and Spring 2009

Course Outcome 2235 #2

Students should be able to analyze a business/problem or situation and determine if and /or how computer applications could be used to enhance the decision-making process

Fall 2008 – Spring 2009 Semester findings for INFO 2235 (Microcomputer Applications in Business)

Summary of Findings: EXCEL Assignment, EXCEL Exam, ACCESS Assignment, ACCESS Test, and Final Exam (Fall only) artifacts

Excel Assignment – Summarizing Data and Making business Decisions

Average Grade = 78.636
Max = 100/100 Min= 0/100
36>=90%
13>=80%
13>=70%
1>=60%
8<60%

Excel Exam

Average Grade = 89.028
Max = 100/100 Min= 0/100
47>=90%
12>=80%
8>=70%
2>=60%
3<60%

Access Assignment – Customizing Data Output with Reports

Average Grade = 76.604
Max = 15/15 Min= 0/15
36>=90%
14>=80%
7>=70%
7>=60%
9<60%

Access Exam

Average Grade = 8S.028
Max = 100/100 Min= 0/100
33>=90%
13>=80%
20>=70%
5>=60%
1<60%

Final Exam - Fall 2008 results

Average Grade = 83.43182
Max = 100/100 Min= 0/100
22>=90%
5>=80%
2>=70%
4>=60%
3<60%

Comments:

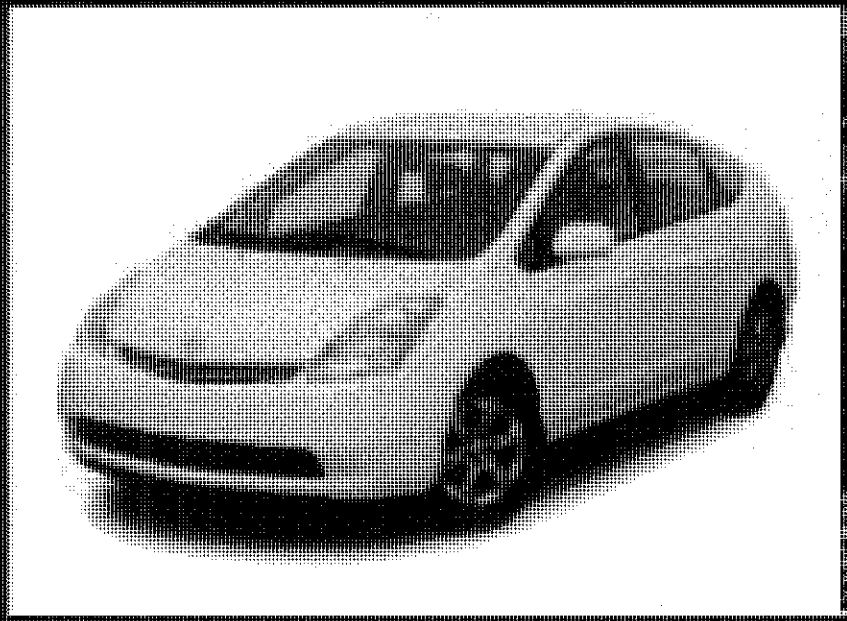
During the Fall 2008 and Spring 2009 semesters, there were two main issues – Textbook and Student Preparedness.

First, the textbook selected for the class has several typographical errors. This caused confusion and frustration in completing some of the assignments from the book. The Online training component in the Pearson software – MyITLab content has improved since the beginning of the Fall 2008 semester and was much more reliable in the Spring semester. However, there were issues in the computer lab with having the software loading properly and in a timely manner.
(This issue is being addressed for the Spring 2010 semester with a change in Textbook and Software)

Second, there is a wide discrepancy in the background/experience that the students have coming into this class. Depending on when the students have completed the INFO1100 pre-requisite, they can come to this class with experience in Microsoft Office applications from various versions from Office 97 through Office 2007. Some students have had INFO1100 with a good understanding of Excel and Access but others have not. Right now, the pre-requisite says the student must have passed INFO1100. This can be passed with a D which may not show a good understanding of the basics required for the INFO2235 class. Should this be addressed?

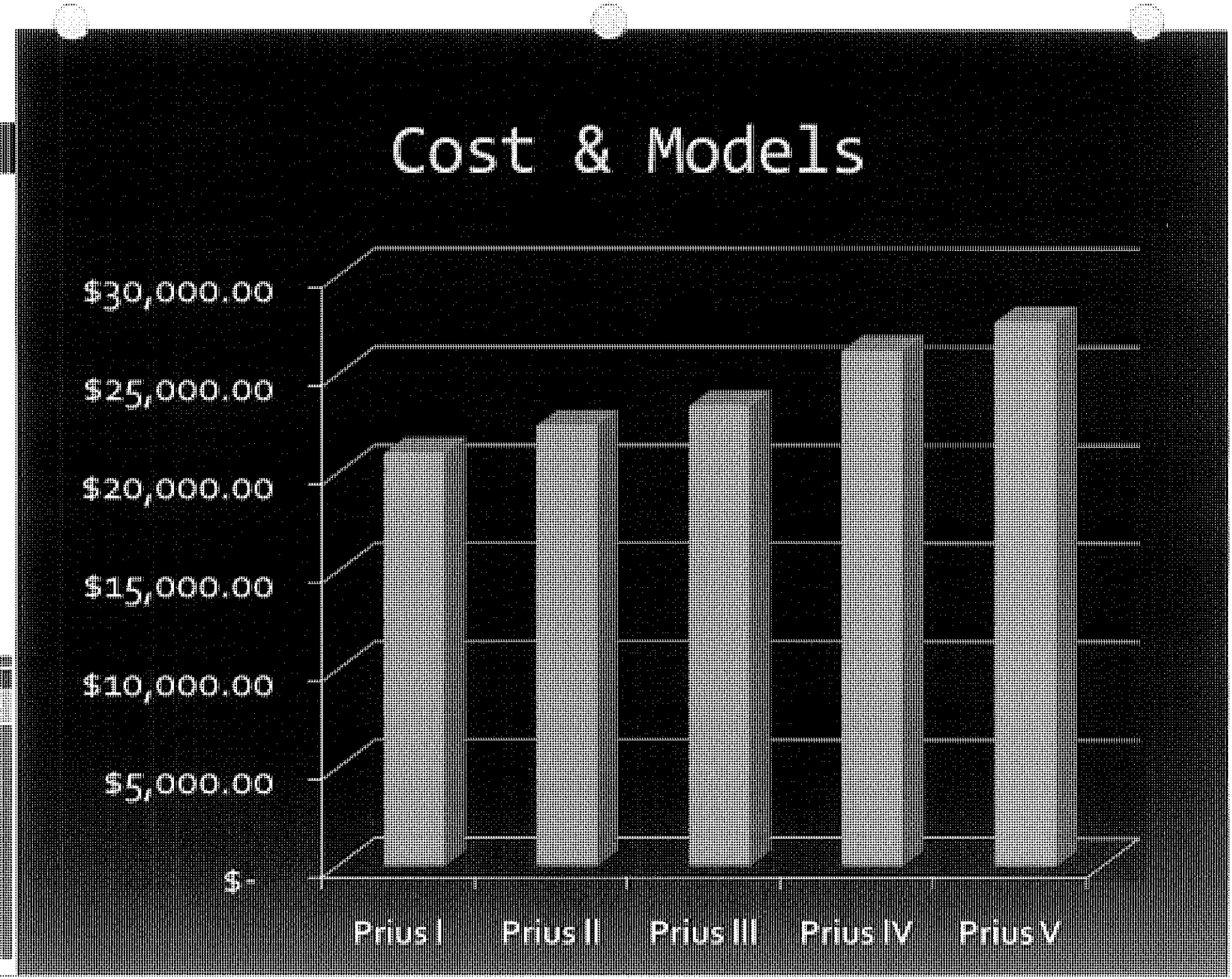
	Course - INFO 2235 - Microcomputer Applications in Business		
	2235.1	2235.2	2235.3
Objectives	Students will be able to understand the fundamental principles of Information Systems and recognize the effective use of information systems in a business environment	Students will be able to analyze a business problem or situation and determine if and/or how computer applications could be used to enhance the decision-making process	Students will be able to construct professional-quality, computer-generated documents to support a given business scenario. The application of the computer process should provide an effective and beneficial aid to the particular circumstances
1) Upon successful completion of the BSBA program, students will be able to demonstrate a **foundation** of business knowledge and technical skills (that supports and facilitates an appreciation of lifelong professional development).	Exam I-1, Exam III-1	Exam I-2, Class Projects, Assignments	Exam III-2, Class Projects, Assignments
2) Upon successful completion of the BSBA program, students will be able to use **critical thinking** to solve complex organizational problems.	Exam II-1, Class Projects	Exam II-2, Class Projects, Assignments	
3) Upon successful completion of the BSBA program, students will be able to **communicate** effectively using oral, written, and electronic documentation skills.			Group Project
4) Upon successful completion of the BSBA program, students will have a conceptual understanding of the overall context of **international business** and the ability to link theory to practice.			
5) Upon successful completion of the BSBA program, students will be able to assess the implications of **personal value, legal, ethical** and **social issues** of individual and organizational business activities.			

TOYOTA PRIUS



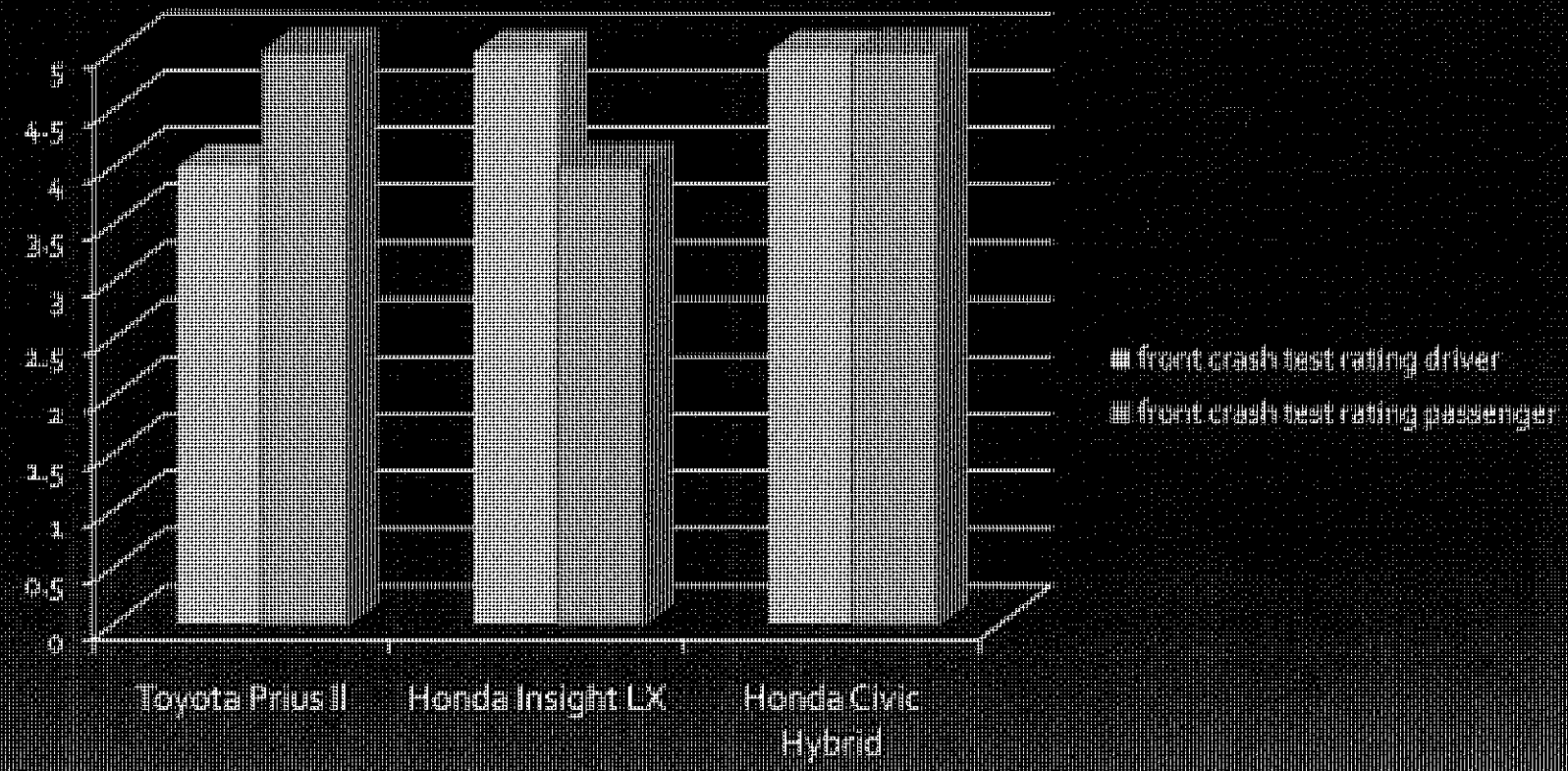
First generation Prius in the United States

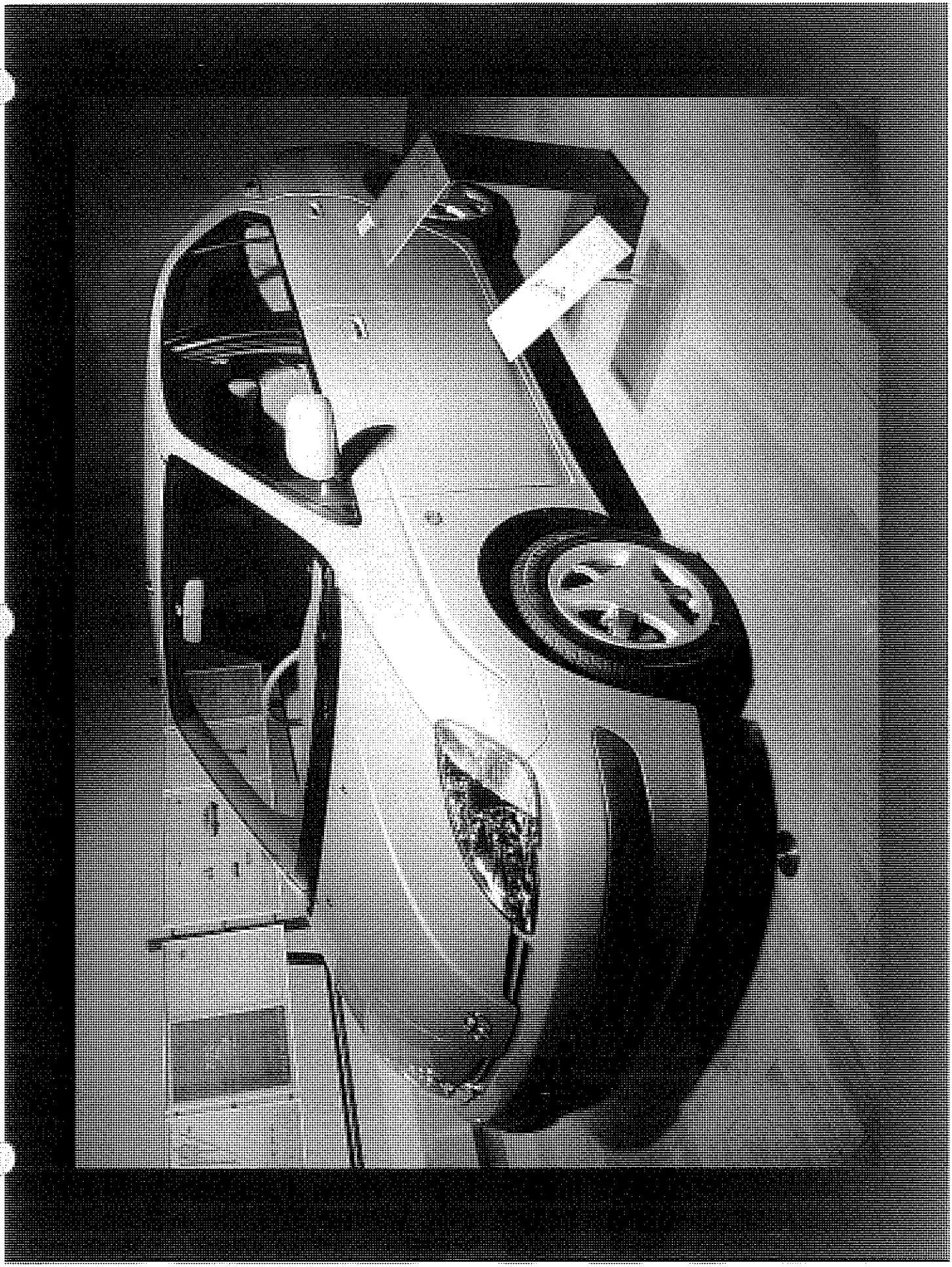
Updated 2010 Prius

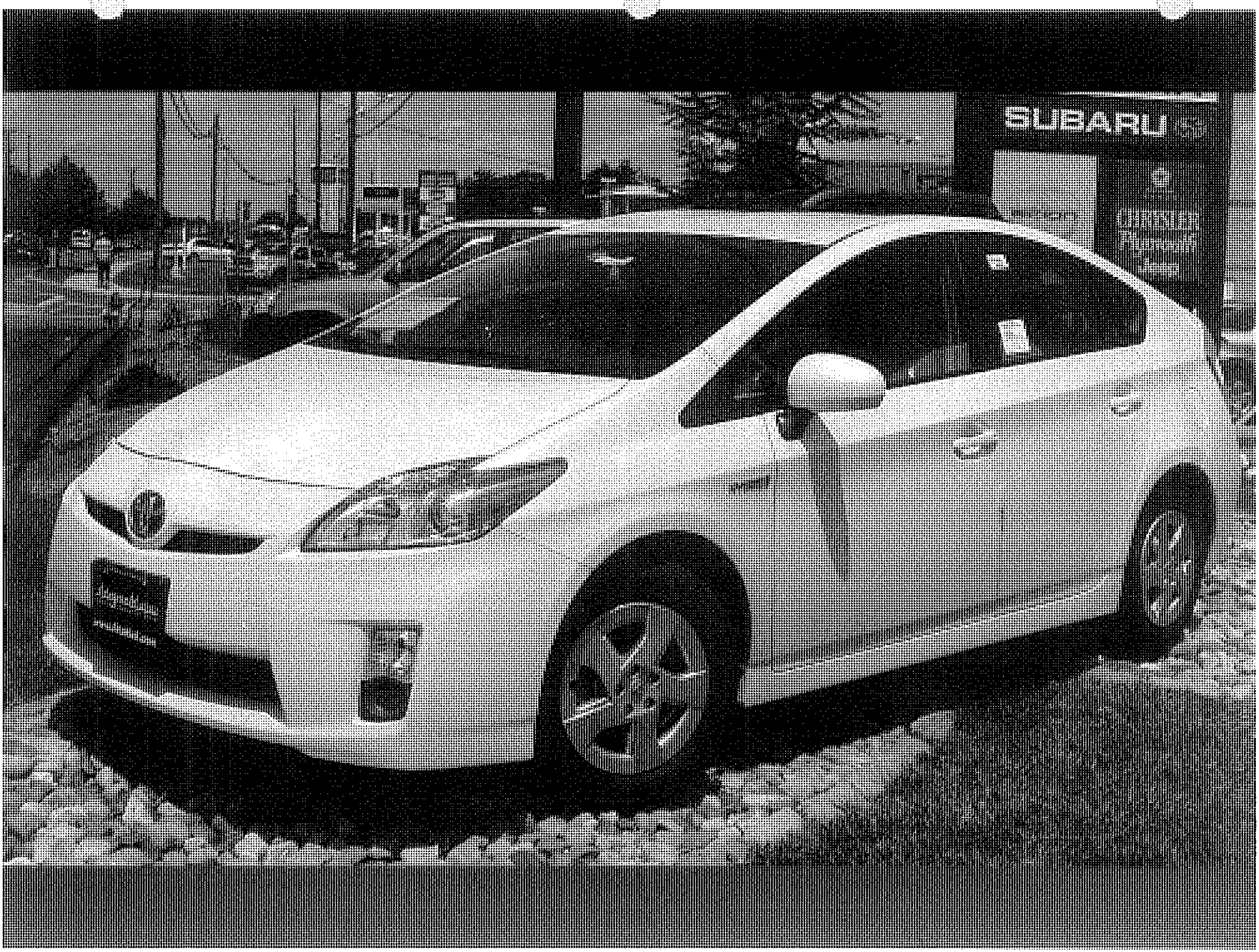

Cost & Models
$30,000.00
$25,000.00
$20,000.00
$15,000.00
$10,000.00
$5,000.00
$-
Prius I
Prius II
Prius III
Prius IV
Prius V

Crash Test

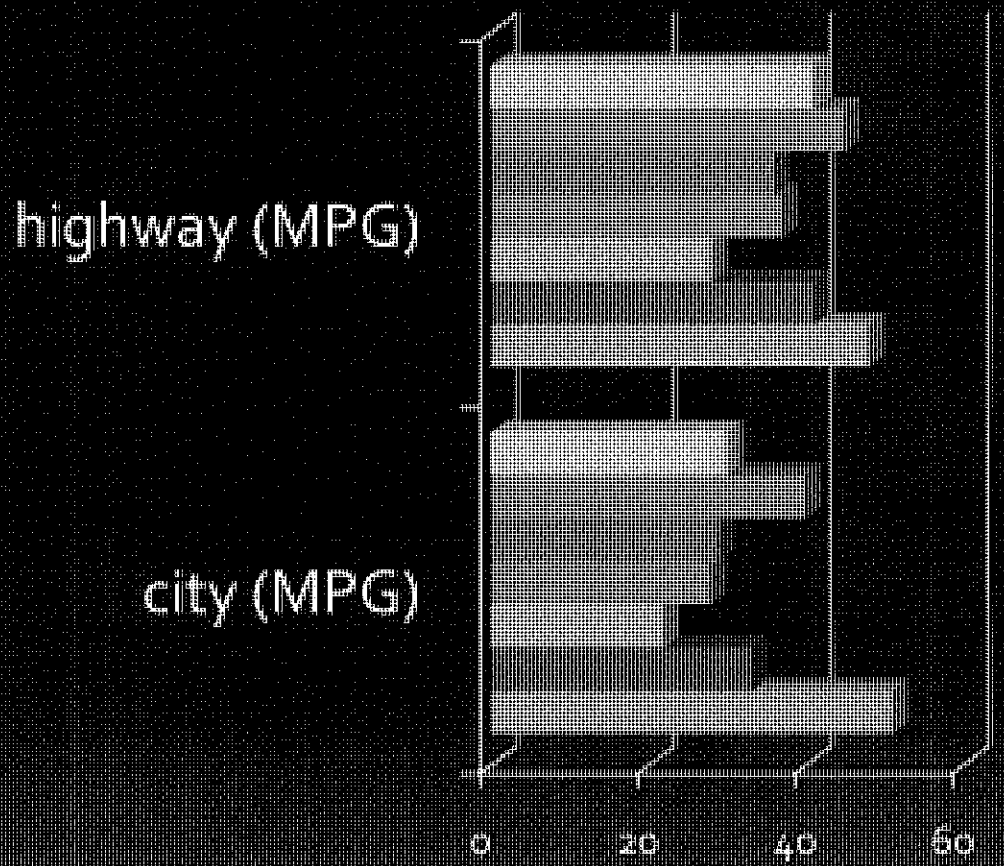
crash-test numbers indicate the chance of serious injury: 5 = 10% or less, 4 = 10-20%, 3 = 20-35%, 2 = 35-45%; 1 = More than 45%.

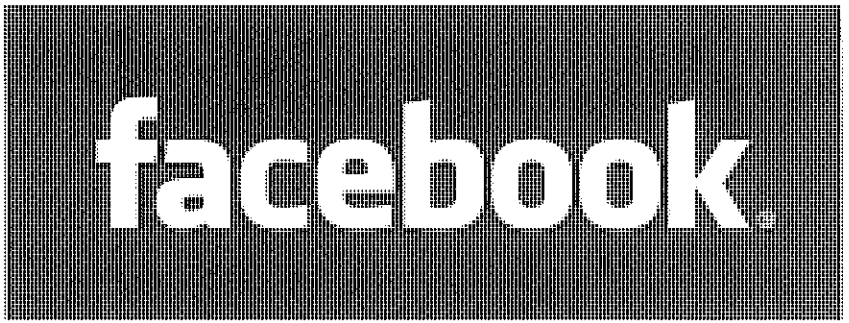





SUBARU

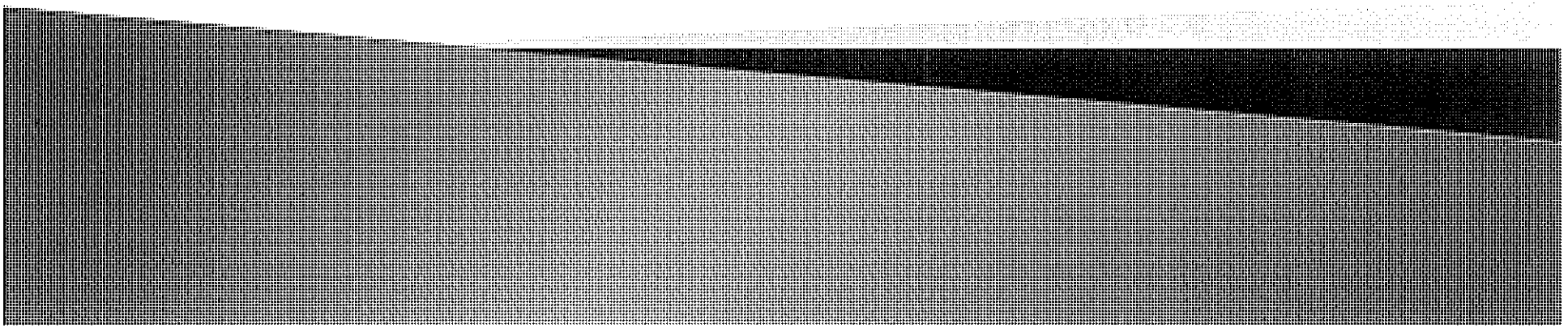
Fuel mileage





How to Make a Facebook

By: Jonathan Bennett
Jaenna Burns
Amanda Kyer
Chris Koay



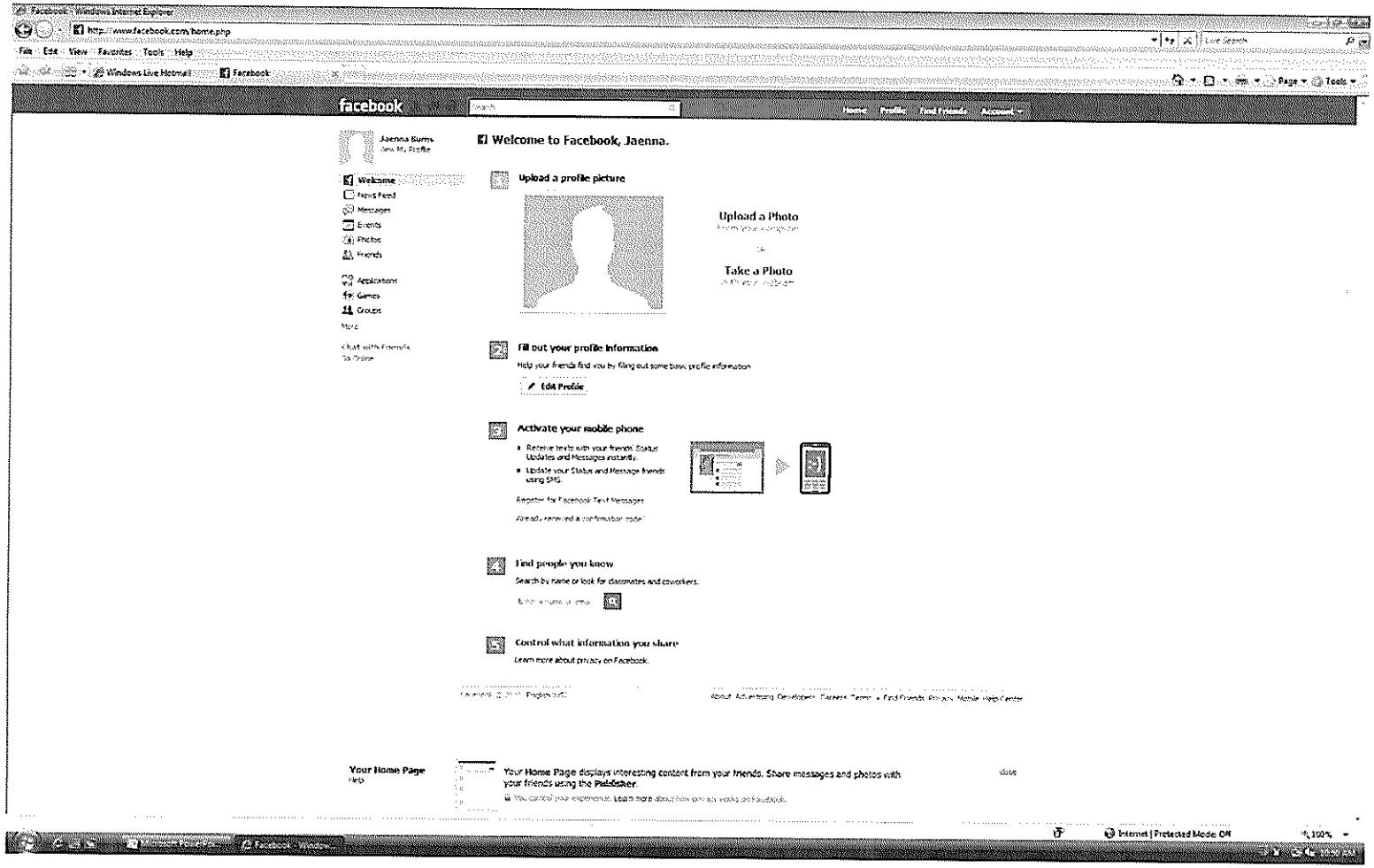
Step 1

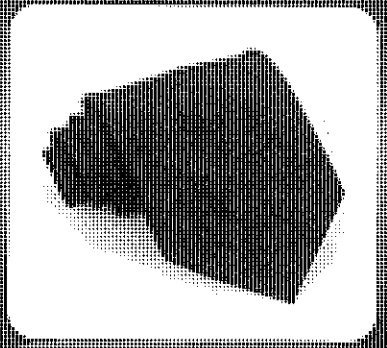
- Many of your friends may already be here. Searching your email account is the fastest way to find your friends on Facebook.
- Type in your email and click find friends

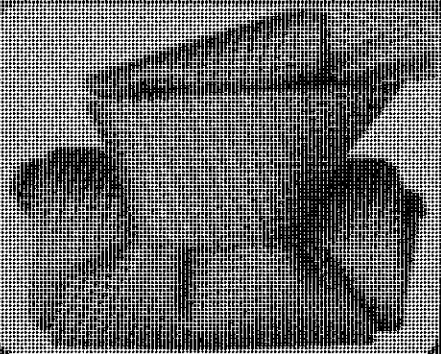
Step 3

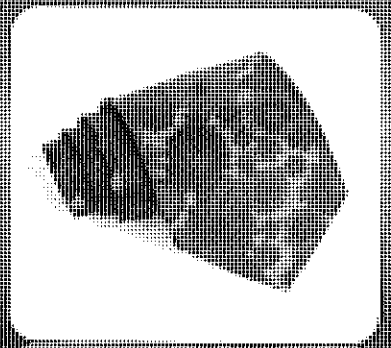
- Set your profile picture
  - Upload a picture from a saved file
  - Take a picture with webcam

Enjoy your new Facebook!



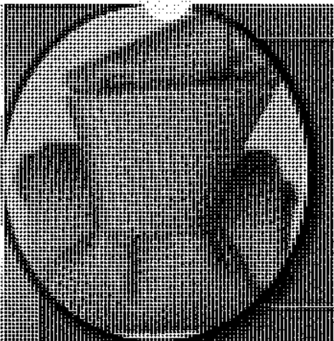






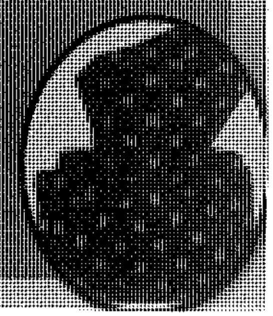
Silk Tie Buying Trip to Italy

Como, Italy November 18, to
November 23. 2009



A Typical Silk Tie Supplier

- Company Antartide established in1990
- Antartide is dedicated to silk ties, divided into three main steps; Classic, Luxury, and Six-folds
- This company produces bow-ties, ascots, and scarves
- Antartide's strives on continuous research, and particular attention given to the smallest needs of the clientele



Budget for Como, Italy Trip

Travel Budget

Participants: Yuri Shimano, Catherine Ostinski, Andrew Guerrero, Lena Catania, Zach Slatkin

Dates: November 18–November 25 2009

Trip: Como, Italy

Purpose: Select and purchase new product line

Estimated Expense	Per Person	Total (per person)	Group	Total (Per person and group)
Airfare round Trip	$ 850.00	$ 4,250.00		$ 850.00
Train Fare for all train trips	$ 70.00	$ 350.00		$ 70.00
Taxi to and from airport	$ 100.00	$ 500.00		$ 100.00
Taxis for three days in Italy	$ 150.00	$ 750.00		$ 150.00
Lodging (Barchetta Excelior Hotel)	$ 139.00	$ 695.00		$ 139.00
Meals Estimated cost for five days	$ 500.00	$ 2,500.00		$ 500.00
Entertaiment (Luncheon and Dinner Meetings etc.)			$ 2,000.00	$ 2,000.00
Totals	$ 1,809.00	$ 9,045.00	$ 2,000.00	$ 3,809.00

Summary

- Goals and Objectives
- Hypothetical Silk Tie Supplier
-
- Budget for Como Italy Trip

Program Assessment for INFO 2200-Fall 2009 and Spring 2010

Course Outcome 2200.5

Student should be able to demonstrate written communication skills by writing a Major Project Outline, develop a PPT, and write an Executive Summary of their presentation.

Findings for INFO 2200 (Fundamentals of Information Systems)

Summary of Findings: Final project and presentation

Fall 2009

Combined Results:

Final Project and Presentation -

Summative Average Grade = 84.00

Max = 100/100

Min= 0/100

36>=90%

26>=80%

9>=70%

2>=60%

7<60%

Results: Satisfactory Performance and Standard Achievement: Met

Recommendations: Students encountered some problems understanding the depth that today's businesses depend on and utilize information systems. To a large degree, students held the view that the information technology group is responsible for the information systems (IS) technology, and they are just users. Students believe that they do not need to understand how IS is applied or how, why, or when it is selected. They encountered some difficulty when they were required to demonstrate how and why technology is used to support key strategic objectives and goals in their chosen major and profession. The course objectives, assignment requirements, and grading criteria, must be updated to increase the student's knowledge and involvement in a business's environment, mission, budget, competitive advantage, business intelligence, and the successful achievement of their objectives and goals.

Spring 2010

Combined Results:

Final Project and Presentation -

Summative Average Grade = 71.95

Max = 100/100

Min= 0/100

10>=90%

36>=80%

14>=70%

2>=60%

5<60%

Results: Satisfactory Performance Standard Achievement: Met

Recommendations: Students encountered some problems understanding the depth that today's businesses depend on and utilize information systems. To a large degree, students held the view that the information technology group is responsible for the information systems (IS) technology, and they are just users. Students believe that they do not need to understand how IS is applied or how, why, or when it is selected. They encountered some difficulty when they were required to demonstrate how and why technology is used to support key strategic objectives and goals in their chosen major and profession. The course objectives, assignment requirements, and grading criteria, must be updated to increase the student's knowledge and involvement in a business's environment, mission, budget, competitive advantage, business intelligence, and the successful achievement of their objectives and goals.

Course Outcome 2200.6

Students should be able to demonstrate oral communications skills in class participation, interacting within a team environment, and presenting a team Major Project Presentation.

Findings for INFO 2200 (Fundamentals of Information Systems)

Summary of Findings: Assignment 3 (Group Collaboration assignment and presentation)

Fall 2009

Summative results:

Assignment 3 -

Summative Average Grade = 87.02

Max = 100/100

Min= 0/100

74>=90%

0>=80%

0>=70%

0>=60%

5<60%

Results: Satisfactory Performance Standard Achievement: Met

Recommendations: The students were able to work in a group setting consisting of 4 or 5 members, and by using an iterative process, they were able to develop a proposal that met the general requirements set out in the assignment. In the future, the requirements of the assignment and the grading rubrics criteria, must be updated to reflect an increase in the depth of understanding, as well as the application and use of the components in an information system. The requirements will become more specific and detailed.

Spring 2010

ummative results:

Assignment 4 -

Summative Average Grade = 83.65

Max = 100/100

Min= 0/100

58>=90%

7>=80%

0>=70%

0>=60%

2<60%

Results: Satisfactory Performance Standard Achievement: Met

ecommendations: The students were able to work in a group setting consisting of 4 or 5 members, and by using an iterative process, they were able to develop a proposal that met the general requirements set out in the assignment. In the future, the requirements of the assignment and the grading rubrics criteria, must be updated to reflect an increase in the depth of understanding, as well as the application and use of the components in an information system. The requirements will become more specific and detailed.

Info 2200 MWF Group 2

Andrea May

James Burnworth

Yuri Shimano

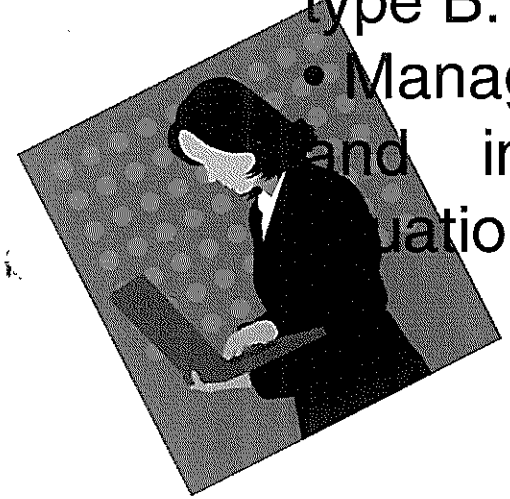
Mark Megert

Gregory Zirk

The computer system required for the manager

Laptop Computer type B

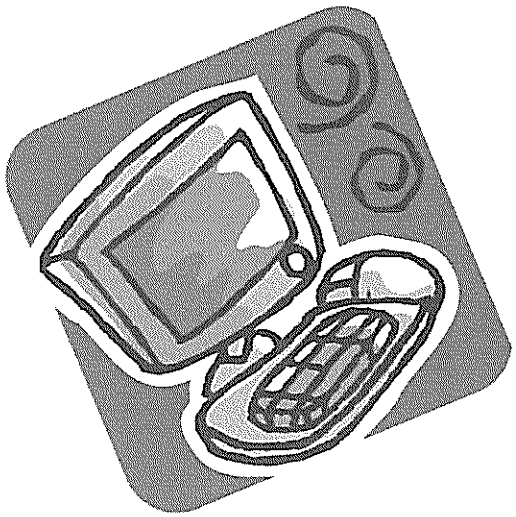
- Other managers are satisfied with Laptop type B.
- Managers need to have the department data and information for every meeting and other uation.



Data gathered in Excel spreadsheet

Required cost for each computer

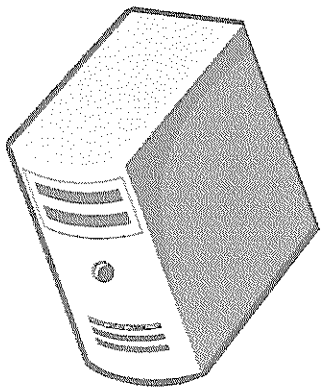
		Laptop	Desktop
Vista Software Charge		$75.00	$75.00
Office 2007 Software Charge		$100.00	$100.00
Netweok and Server Charge		$1,200.00	$1,200.00
	Total	$1,375.00	$1,375.00



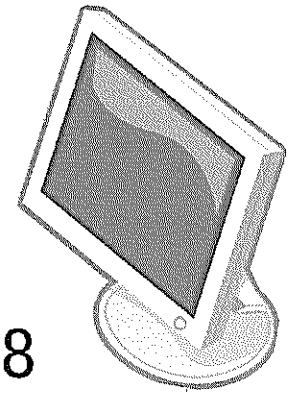
Data gathered in Excel spreadsheet

Prices for different classes of computer from each company

	Computer A	Computer B		Computer C
	Desktop	Laptop	Desktop	Desktop
Dell	$700.00	$599.00	$699.00	$3,578.00
HP	$ 599.99	$ 579.99	$599.99	$599.99
Lenovo	$419.00	$599.00	$489.00	$2,374.00

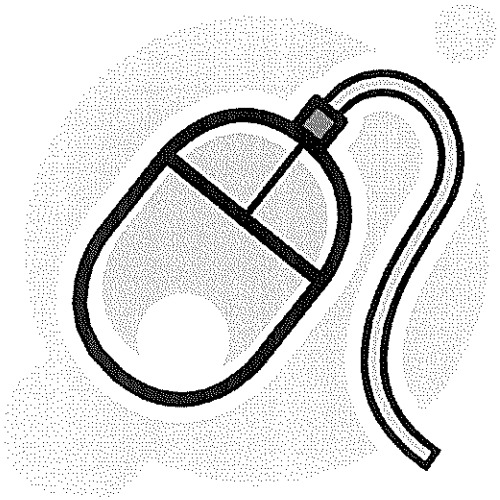


Data gathered in Excel spreadsheet

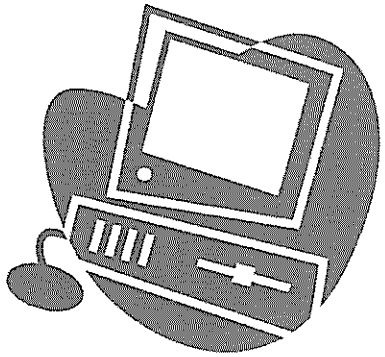


Input cost

		Cost
Monitor		$248.98
Keyboard		$49.99
Mouse		$64.25
	Total	$363.22



Data gathered in Excel spreadsheet



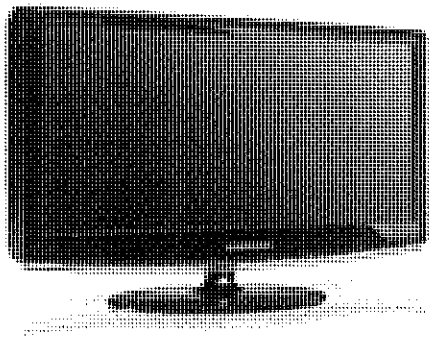
Total cost for category

Job Title	Number of Emplyees	Computer System Required	Computer Type	Price per Unit	Hardware and Software Cost	Total Cost for Category
Product manager	8	B	Laptop	$599.00	$1,375.00	$15,792.00
Telesales	14*	A	Desktop	$419.00	$1,738.22	$30,201.08
Department Admin	2	A	Desktop	$419.00	$1,738.22	$4,314.44
Marketing Communications Manager	4	B	Laptop	$599.00	$1,375.00	$7,896.00
		C(desktop)	Both, a desktop and laptop for	$2,374.00	$1,738.22	$16,448.88
Marketing Analyst	4	B(laptop)	each analyst	$599.00	$1,375.00	$7,896.00
Marketing Programs Manager	6	B	desktop	$489.00	$1,738.22	$13,363.32
Manager	1	B	Laptop	$599.00	$1,375.00	$1,974.00

* Two desktops were added for projected 10% growth.

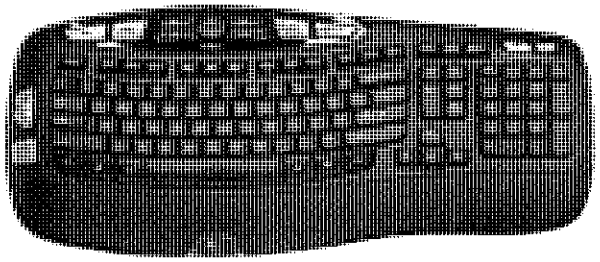
Total $97,885.72

Monitor



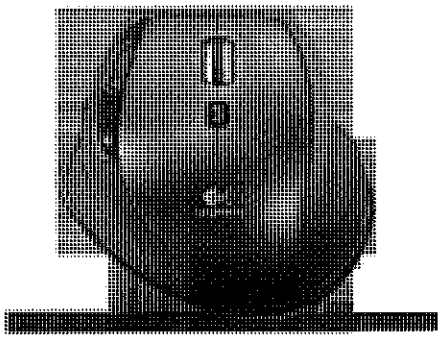
- I recommend the Samsung SyncMaster 2333HD
- It is $248.98
- This HD computer Monitor offers Dobly Digital 5.1 optical SPDIF stereo speakers That brings sound to life
- This monitor has sleek curves all over it, with a glossy finish, it will make your office look very stylish.
- It has 2 HDMI connections so you can easily connect other devices to your monitor

Key Board



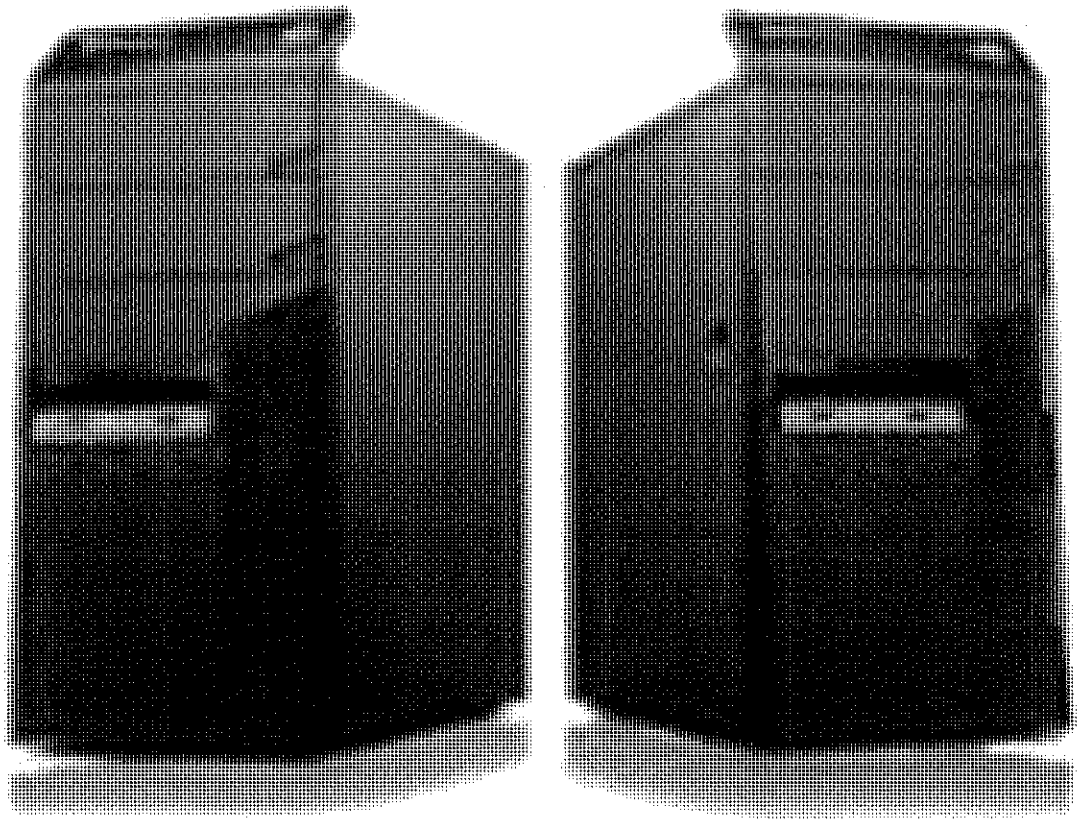
- I recommend the Logitech K350 keyboard
- It is $49.99
- This key board has a wave shape contour, which adjusts to various lengths Of fingers.
- This key board comes with a extended battery life, up to three years.
- The palm rest helps you position your hands on the keyboards, and allows you To type more comfortably.
- This key board offers three options for you to adjust the height of the keyboard.

Mouse



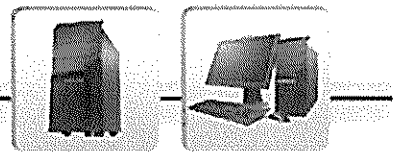
- I recommend the Logitech MX 1100 mouse
- It is $64.25
- This elegantly shaped mouse is designed to support the natural curves of your hand.
- This mouse has the reliability of a cord without a cord.
- This mouse offers a stealth thumb button which makes it easier to jump From one program to the next. You can also change the cursor speed, and the actual cursor.
- This mouse has a 9 month extended battery warranty.

ThinkCentre A58 SFF



ThinkCentre

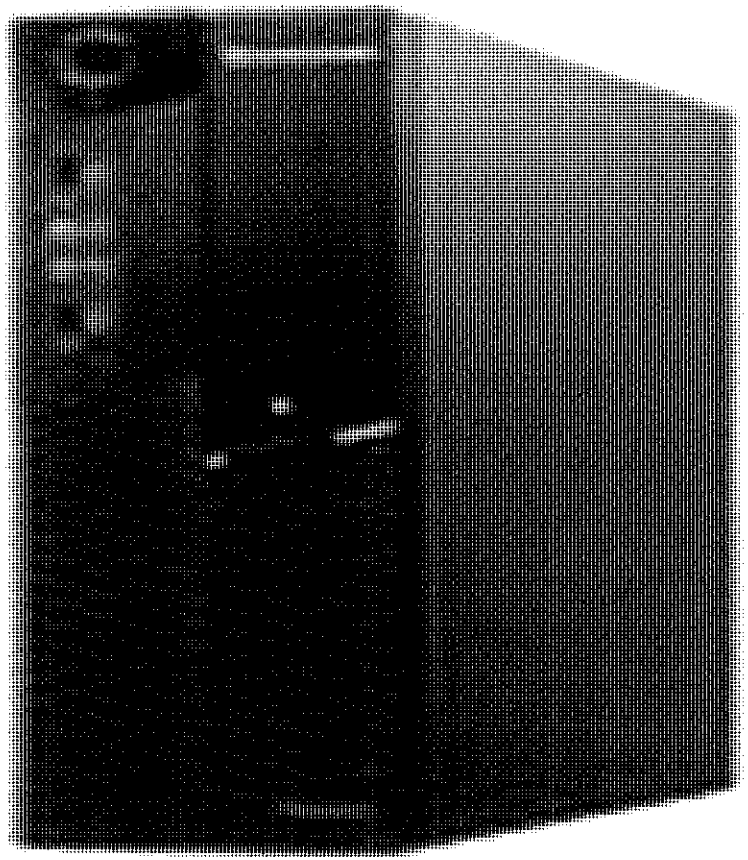
A63 Tower TechSpecs



Processor

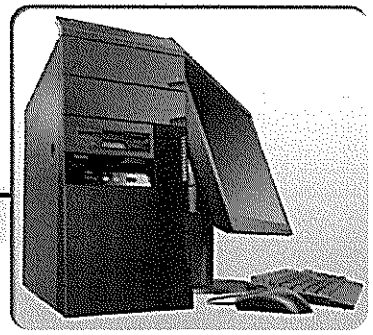
- AMD® Sempron™ 140 (2.7GHz, 1M Total Cache, AM3, 45W)
- **Memory**
- DIMM Slots 2 (DIMM)/4 (DIMM)
- Modules Types Supported 1GB/2GB
- **Hard Drive Options**
- Partition Support: NTFS (Default) / FAT32
- 250GB 7200RPM SATAII

ThinkCentre A58 SFF



A58

TechSpecs



Processor

•Intel Pentium Dual-Core E5300 processor(2.60GHz 800MHz FSB 2M L2)

Memory

•2GB PC2-6400 SDRAM (1

•Modules Types Supported 1GB/2GB

Hard Drive Options

•250GB 7200RPM SATAII

Enhanced ThinkPad SL410

Enhanced ThinkPad SL410 with integrated graphics

Processor

- Intel Core 2 Duo processor T6570 (2.1GHz 800MHz 2MBL2)

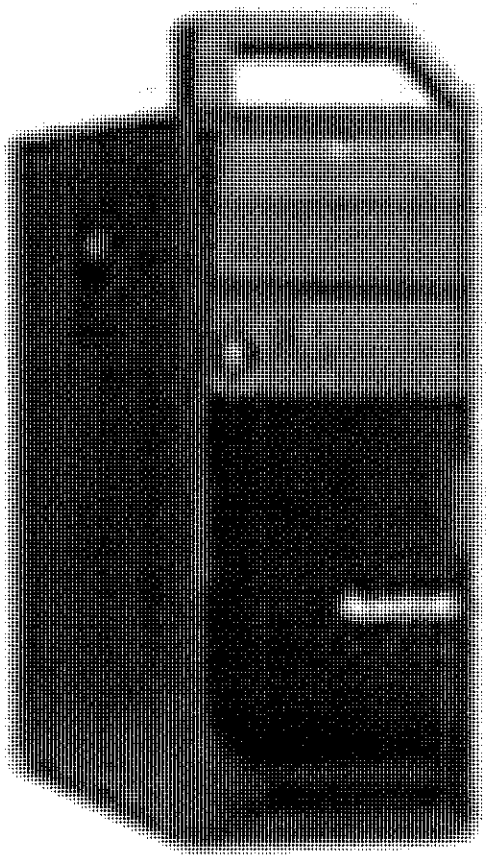
Total memory

- 2 GB PC3-8500 DDR3 SDRAM 1067MHz

Hard drive

- 250 GB Hard Disk Drive, 5400rpm Optical device

ThinkStation D20



Processor

•Intel Xeon E5504 Processor (2.00GHz 800MHz 4MB L2) - 80W quantity: 2

Total memory

•8GB ECC DDR3 PC3-8500 SDRAM (1GBx8 UDIMMS)

Hard drives

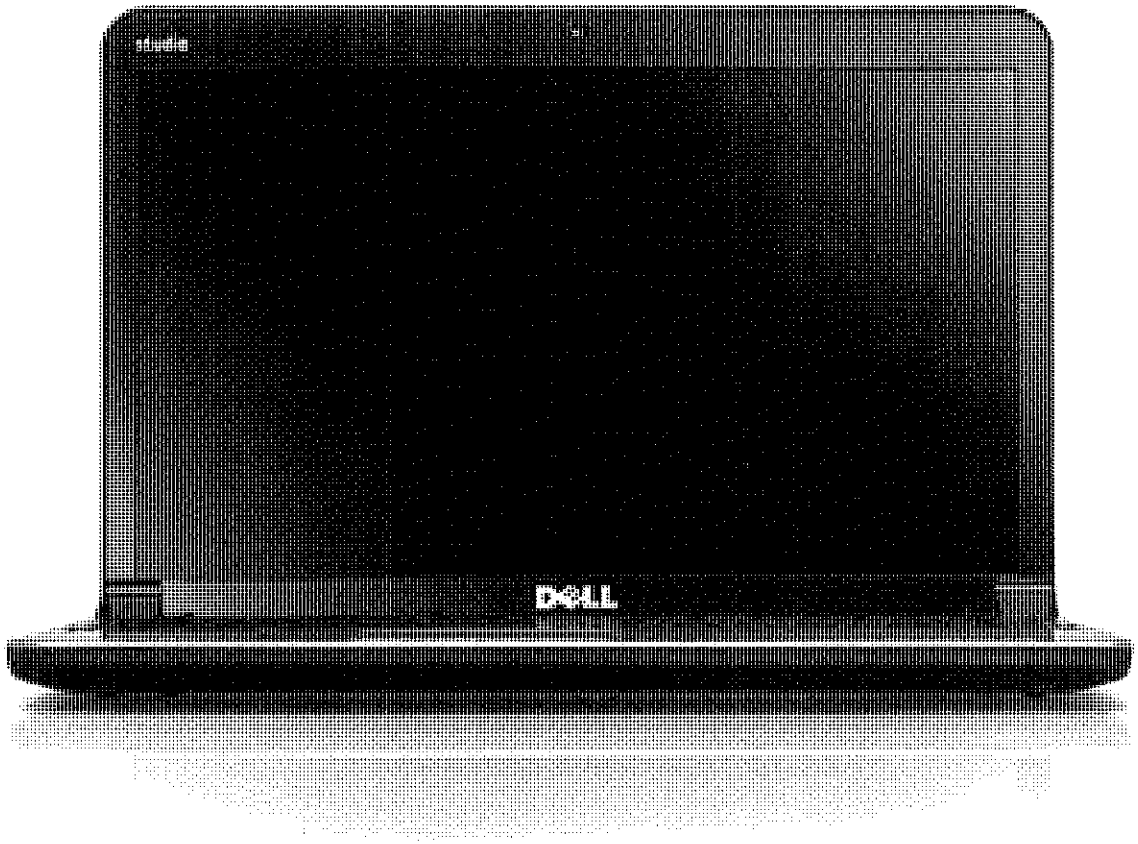
•250GB SATA 3.5" Hard Drive - 7200 rpm quantity: 2

Studio Hybrid (Vista 32-bit)

Studio Hybrid

- Intel® Pentium® Dual Core T4300 (2.1GHz/800MHz FSB/1MB cache)
- Genuine Windows® 7 Home Premium, 64bit, English
- (System includes DVI and HDMI ports.
- Slot Load CD/DVD Burner
- 2GB[1] Shared Dual Channel DDR2
- 160GB[2] SATA Hard Drive (5400RPM)

Studio 14z Laptop



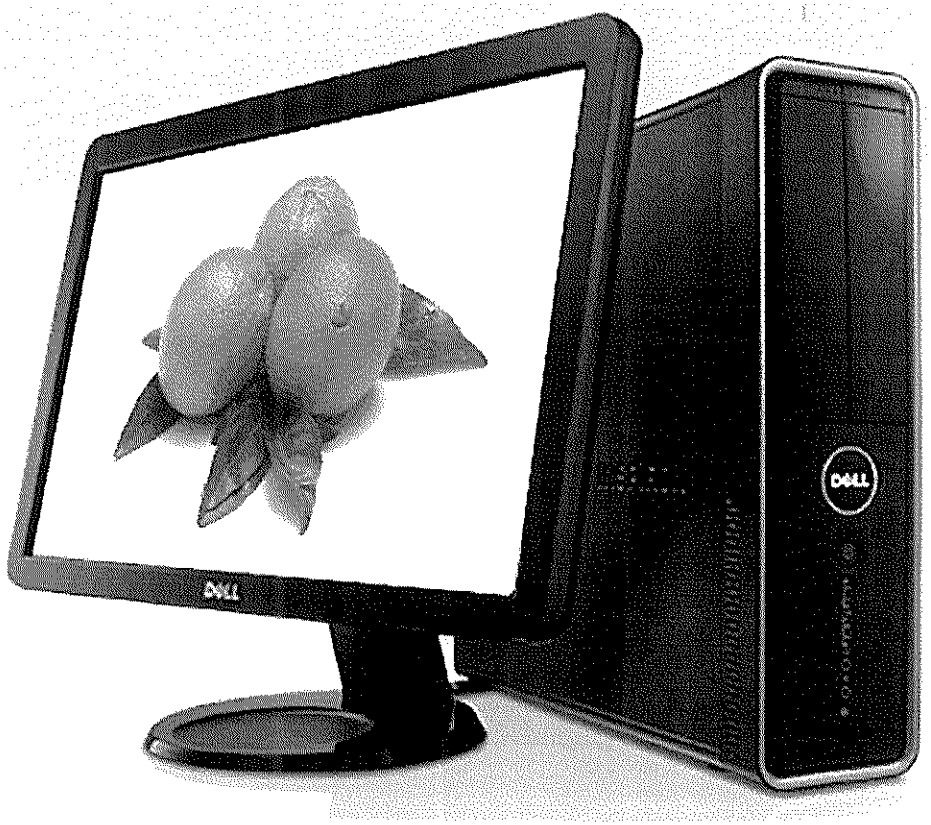
Studio 14z

- Intel® Core™ 2 Duo T6600 (2.2GHz/800Mhz FSB/2MB cache)
- Genuine Windows® 7 Home Premium, 64bit
- 14.0" High Definition (720p) LED Display with TrueLife™ and Camera/Facial Recognition SW
- 3GB[1] Shared Dual Channel DDR3 at 1066MHz
- Size: 250GB[2] SATA Hard Drive (5400RPM)
- NVIDIA® GeForce® 9400M G
- Dell Wireless Half Mini-Card
- 56 Lithium Ion Battery (6 cell)
- Intel® Core™ 2 Duo T6600 (2.2GHz/800Mhz FSB/2MB cache)

Dell Precision T7500

- Dell Precision T7500 Workstation
- **Memory**
- 4GB, DDR3 Memory, 1066MHz, ECC (4 DIMMS)
- **Boot Hard Drive**
- 2 - 250GB[2] SATA 3.0Gb/s with NCQ and 8MB DataBurst Cache™

Inspiron 560s Desktop



Inspiron 560s

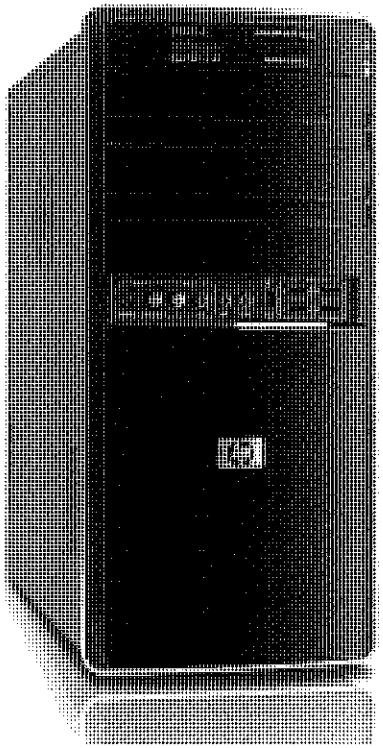
- Intel® Core™ 2 Duo E7500 (2.93GHz,3MB L2,1066MHz)
- Genuine Windows® 7 Home Premium, 64Bit
- 20.0" Dell IN2010N HD Monitor with VGA cable
- 16X DVD+/-RW Drive
- 4GB[1] Dual Channel DDR3 SDRAM[2] at 1066MHz-4 DIMMs
- 500GB[3] Serial ATA Hard Drive (7200RPM) w/DataBurst Cache™
- NVIDIA GeForce G310 512MB[4]

Class A

- HP Pavilion p6380t series
- Intel quad-core processors for running multiple apps
- Windows 7 Home Premium
- Mega dual-channel DDR2 800MHz SDRAM
- Massive storage with large hard drive options
- Crisp visuals with integrated graphics
- Prices start out at $599.99

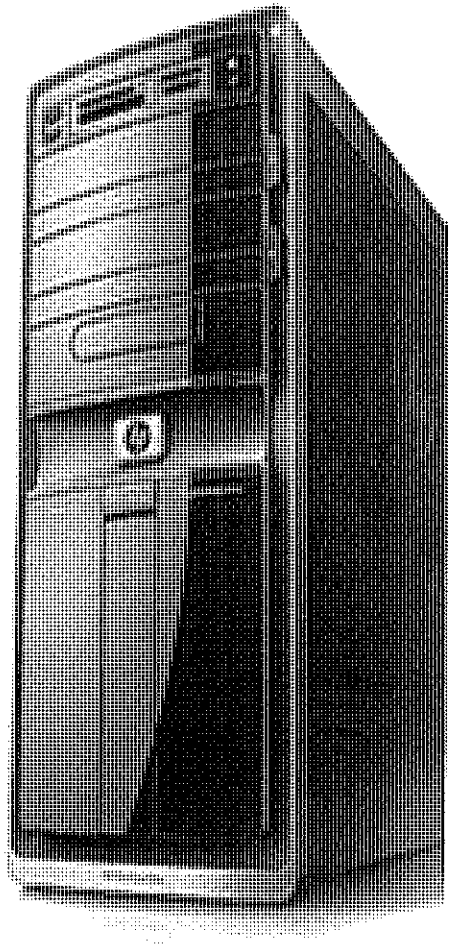
Class B

- We used the HP Pavilion p6380t series again.
- This was the only business class pc offered.



Class C

- HP Pavilion Elite e9300z series
- Windows 7 Home Premium 64-bit
- AMD Athlon(TM) X4 620 quad-core processor [2.6GHz, 2MB L2, up to 4000MT/s bus]
- 4GB DDR3-1066MHz SDRAM [2 DIMMs]
- 500GB 7200 rpm SATA 3Gb/s hard drive
- 512MB ATI Radeon HD 4350 [DVI, HDMI, VGA adapter]
- Norton Internet Security(TM) 2010 - 15 month
- Starting price $599.99



March 8, 2009 Collaboration Project INFO2200-02

Yuri Shimano

James Burnworth

Andrea May

Mark Megert

Gregory Zirk

We began this project by dividing it into five parts. Andrea researched accessories, James researched Lenovo, Mark researched Dell, Gregory researched Hewlett Packard, and Yuri created a spreadsheet from the others data. We used Google Docs to collaborate on any issues we had and to centralize our findings. We all agreed that the new manager should have a laptop since all other managers use them. Our required budget came out to $97,885.72 based on the listed below.

Total required cost for each computer

Software and IT fees	**Laptop**	**Desktop**
Vista Software	$75.00	$75.00
Office 2007 Software	$100.00	$100.00
Network and Server	$1,200.00	$1,200.00
Total	**$1,375.00**	**$1,375.00**
Extra Component Costs		
Monitor		$248.98
Keyboard		$49.99
Mouse		$64..25
Total of Components		**$363.22**
Total Costs	**$1,375.00**	**$1,738.22**

Prices for different classes of computer from each company

	Computer A	Computer B		Computer C
	Desktop	Laptop	Desktop	Desktop
Dell	$700.00	$599.00	$699.00	$3,578.00
HP	$599.99	$579.99	$599.99	$599.99
Lenovo	$419.00	$599.00	$489.00	$2,374.00

Total cost for category

Job Title	Number of Employees	Compuyter System Required	Computer Type	Computer Brand	Hardware and Software Cost	Total Cost for Category
Product manager	8	B	Laptop	$ 599.00	$1,375.00	$15,792.00
Telesales	14*	A	Desktop	$ 419.00	$1,738.22	$30,201.08
Department Admin	2	A	Desktop	$ 419.00	$1,738.22	$4,314.44
Marketing Communications Manager	4	B	Laptop	$ 599.00	$1,375.00	$7,896.00
Marketing Analyst	4	C(desktop)	Both, a desktop and laptop for each analyst	$ 2,374.00	$1,738.22	$16,448.88
		B(laptop)		$ 599.00	$1,375.00	$7,896.00
Marketing Programs Manager	6	B	desktop	$ 489.00	$1,738.22	$13,363.32
Manager	1	B	Laptop	$ 599.00	$1,375.00	$1,974.00
					Total	$97,885.72

* Two desktops were added for growth in the Telesales department.

Questions

a. Given this data, is $80,000 enough? If not, how much money should be allocated in your department?

   No, $80,000 is not enough to meet our needs. Our figures show that we need approximately $97,886 for our budget.

b. Explain how you will meet the computer needs of the employees in your department. Assume you are required to buy new computers and equipment from Dell, HP, or Lenovo.

   We are meeting the employee's needs by purchasing Lenovo equipment. This decision was made after comparing the results of the listed manufacturers.

c. Describe the modification and reallocation of existing computers.

   We decided to use all new equipment so there is no reallocation of the existing equipment. It would be turned over to the IT department for disbursement.

James Pratt
Scott Throckmorton
Graeme Louden
Jessica Williams
Jessi Short
Zack Page

Info 2200 – Collaboration
$80,000 budget questions pg 137.

1) A) Yes, $80,000 is feasibly enough, but the budget we worked up allocates a need of at least $5,000 more, $10,000 is what we would request to cover our bases, and for any problems that may arise. By deciding to go with all new systems, our budget rose above the $80,000; however, it will save the company money in the future. Less maintenance and less downtime will more than equal out the cost difference, not to mention less budget use for computer systems the upcoming year. In the ever changing technology field you must keep up, or fall behind.

b) We started out by taking out the overhead fees, and licensing fees that are required. From there we determined how many systems of each class we would need, which also included the telesales growth of 10%. After we calculated the number of computers needed, we examined the computer needs of each department. From there we were able to move onto price comparison to see what it would take to meet, or exceed these needs. We decided to take care of our company and our employees by employing all new systems. Dell gave us the best bang for our buck, not to mention their reputation with after sale service has preceded them. As a large company we were looking for just the needs of the following year, we were looking for longevity to ensure that our company can push forward, and hopefully continue to be profitable.

C) For the most part we did not reallocate the existing systems. We did re-use 16 of the monitors for our class A's, and we were keeping old components, i.e. hard drives and monitors around for backups. See Spreadsheet for analysis of comparison.

New- Hardware Cost Calculator

	Laptop	Desktop
Price for Class A Computer	n/a	$ 625.00
Price for Class B Computer	$ 667.00	$ 625.00
Price for Class C Computer	n/a	$ 901.00
Vista Software Charge	$ 75.00	$ 75.00
Office 2007 Software Charge	$ 100.00	$ 100.00
Network and Server Charge	$ 1,200.00	$ 1,200.00

Job Title	Number of Employees	Computer System Required	Computer Type	Server and Software Charge
Product Manager	8	B	Laptop	$ 11,000.00
Telesales	12	A	Desktop	$ 16,500.00
Department Admin	2	A	Desktop	$ 2,750.00
Marketing Communications Manager	4	B	Laptop	$ 5,500.00
Marketing Analyst	4	C	Desktop	$ 5,500.00
		B	Laptop	$ 5,500.00
Marketing Programs Manager	6	B	Desktop	$ 8,250.00
"You"	1	C	Desktop	$ 1,375.00
		B	Laptop	$ 1,375.00

Hardware Cost	Total Cost for Category
$ 5,336.00	$ 16,336.00
$ 7,500.00	$ 24,000.00
$ 1,250.00	$ 4,000.00
$ 2,668.00	$ 8,168.00
$ 3,604.00	$ 9,104.00
$ 2,668.00	$ 8,168.00
$ 3,750.00	$ 12,000.00
$ 901.00	$ 2,276.00
$ 667.00	$ 2,042.00
Total Cost	$ 86,094.00

Program Assessment for INFO 2235 for 2009 - 2010

Course Outcome 2235.3

Students will be able to construct professional quality, computer-generated documents to support a given business scenario. The application of the computer process should provide an effective and beneficial aid to the particular circumstances.

Findings for INFO 2235 Microcomputer Applications in Business

Summary of Findings: Group Project

Fall 2009

Group Project I Results:

Evaluation Criteria

- Introduce Topic clearly: 25 pts
- Articulate, professional, confident: 25 pts
- Effective summary / Conclusion: 25 pts
- Easy to read / consistent / visuals: 25pts

Item	Points
MAX	100
MIN	0
AVERAGE	88

Summary Statistics

Criteria	Number of Students
>=90%	22
>=80%	15
>=70%	7
>=60%	
<60%	

Descriptive Statistics

Results: Satisfactory Performance Standard Achievement: Met

Comments: Two issues were observed during Fall 2009 semester. First, the current textbook (Go Advanced) covers too advanced topics so it is difficult for students follow the textbook directions, especially those who passed INFO 1100 with a low grade or those who took INFO 1100 not recently. A new textbook should be adopted for INFO 2235. Second, generally

students have excellent PowerPoint skills. Every single group made an excellent PPT files. Therefore, it is not a good idea to repeat PowerPoint in INFO 2235.

Spring 2010

Group Project I Results

Evaluation Criteria

- Introduce Topic clearly: 25 pts
- Articulate, professional, confident: 25 pts
- Effective summary / Conclusion: 25 pts
- Easy to read / consistent / visuals: 25pts

Item	Points
MAX	100
MIN	0
AVERAGE	82

Summary Statistics

Criteria	Number of Students
>=90%	21
>=80%	10
>=70%	9
>=60%	
<60%	2

Descriptive Statistics

Results: Satisfactory Performance Standard Achievement: Met

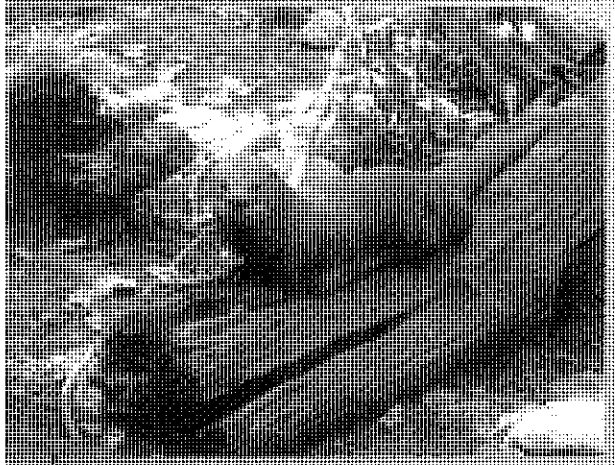
Comments: A next textbook was adopted and used during spring 2010 semester, and it was very successful. The textbook contents and difficulty fitted with our students, and it helped the instructor to cover various topics in an organized way. Two factors negatively influence students' grade in spring 2010. First, canceling and absenting from classes due to heavy snows negatively influence classroom performances and grades. The following E-week was also difficult to manage due to many various weather related issues. It is also observed that students' PowerPoint skill is excellent while their oral presentation skill needs much improvement.

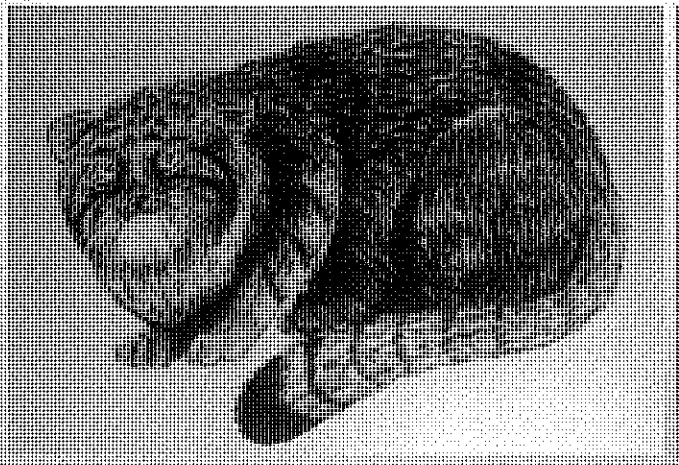
Our Favorite Zoos

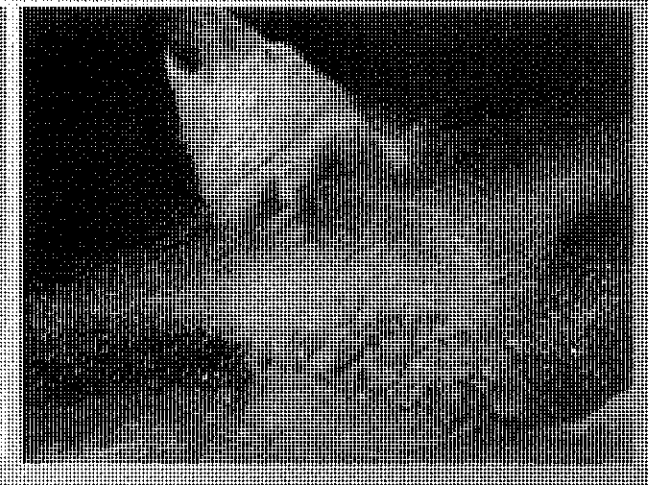
By: Charlie Cunningham, Natasha Finley, Chad Frasher, and Brittyn Saunders

Why I picked this

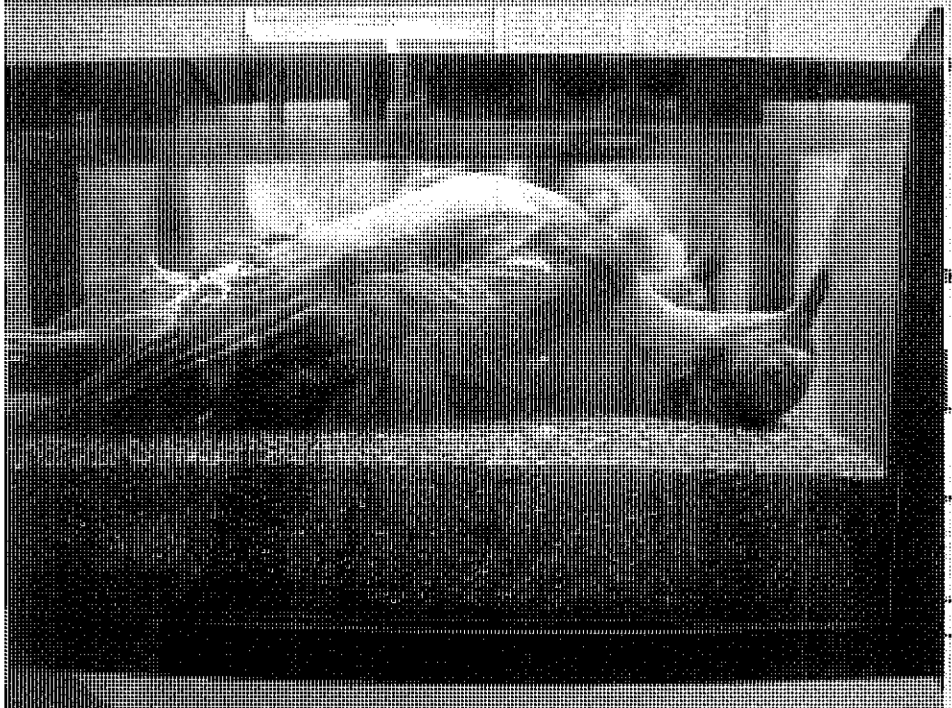
- Zoo Lover
- Most animals for size
- Animal Houses

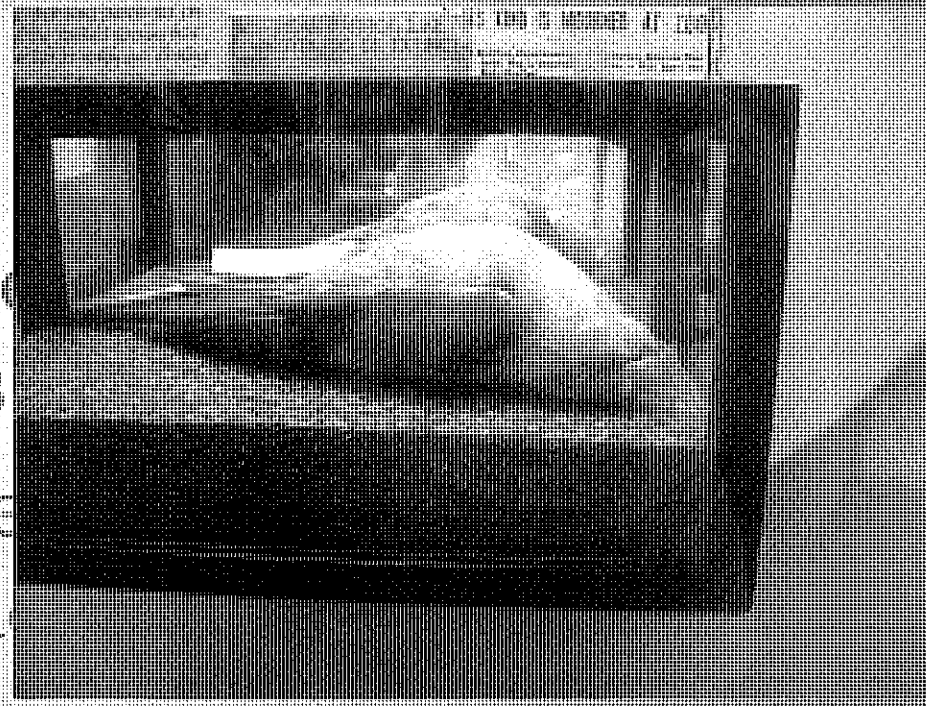






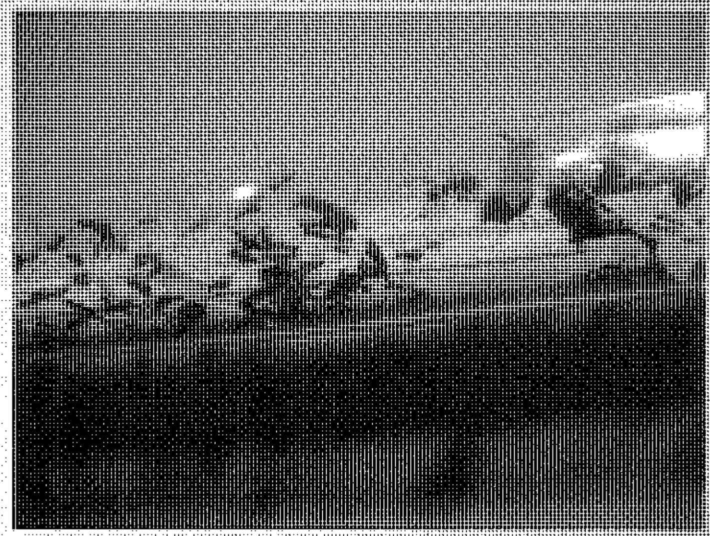
Cincy Fun Facts





Carolina parakeet

Pictures from our visit



Fort Worth Zoo

- Founded in 1909 with one lion, two bear cubs, an alligator, a coyote, a peacock, and a few rabbits
- Oldest zoo in Texas
- Ranked #5 in the nation
- The Fort Worth Zoo has a total of 12 permanent exhibits area ranging from penguins to Texas Wild.
- Now houses more than 5,000 native and exotic animals.

- The San Diego zoo is located in southern California and the constant warm weather allows this zoo to stay open for visitors year round!
- The zoo started from an animal expo and was opened in 1915.
- It covers over 100 acres of land and is home to over 4,000 animals from 950 different species! It also boasts over 700,000 exotic plants!
- One of the only zoos in the world to have open air exhibits.
- Home to Bai Yun who has given birth to five pandas in captivity and is considered the most successfully reproductive captive panda.

Caesar the Bear

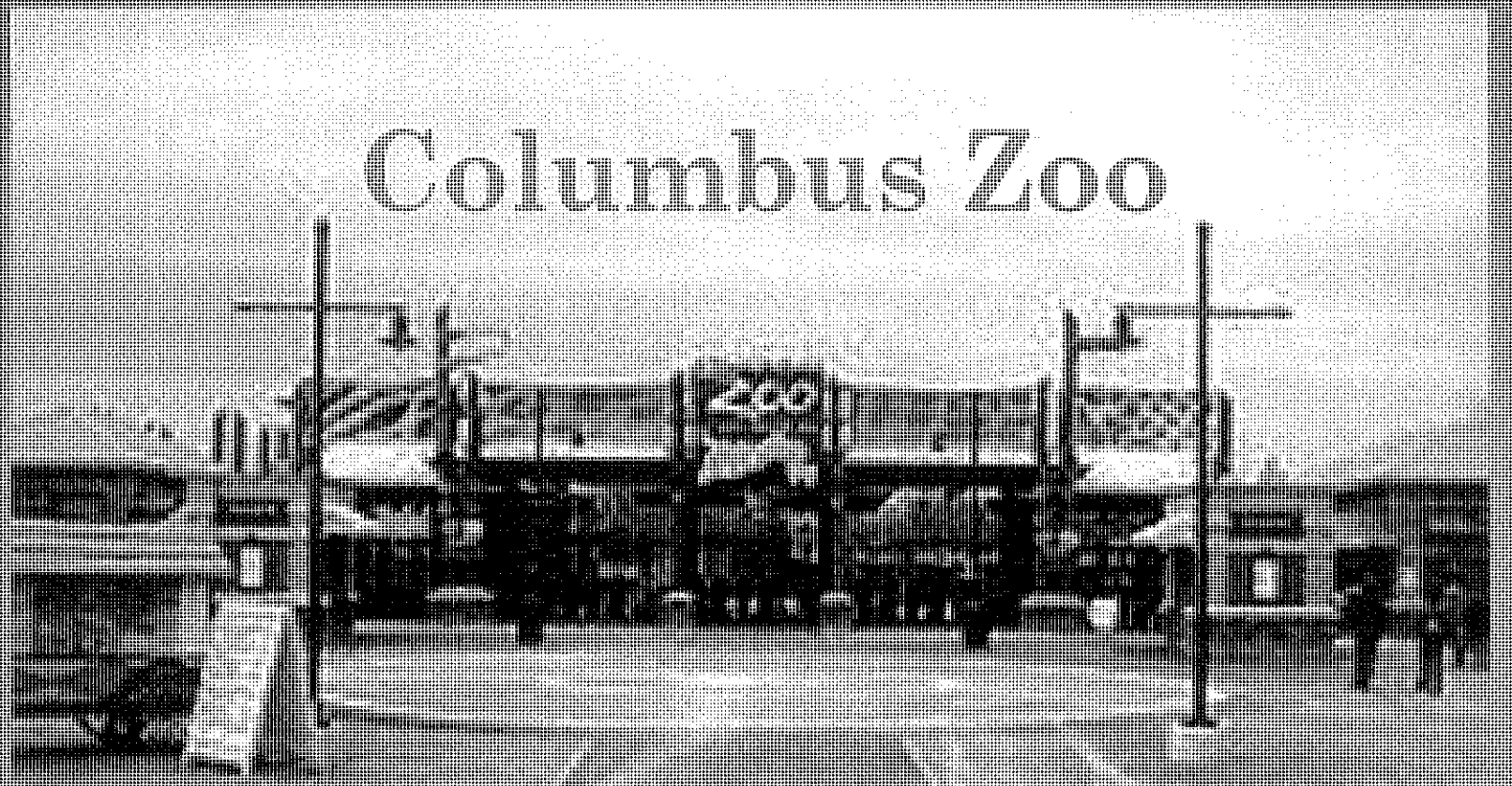
- Caesar was the first animal donated to the San Diego zoo. It was the mascot on a navy vessel but was growing to large for the ship.
- The bear quickly outgrew it's initial cage and was found wandering around the property.
- This led to public donations for a proper cage for the bear.

- Caesar quickly destroyed this enclosure by bending the steel bars, ripping the walls apart, and digging a tunnel to the polar bear enclosure.
- This led to the necessity for concrete enclosures and what is now the popular bear exhibit at the zoo!

Cool Facts!

- The world's only captivity born albino Koala was born in the San Diego zoo and was names Onya-Birri which means ghost boy.
- The Beach Boys used a photo from the San Diego Zoo for their 1966, Pet Sounds, album cover.
- The San Diego is the largest zoological membership association in the world! There are over half a million active members!

Columbus Zoo



Interesting Facts

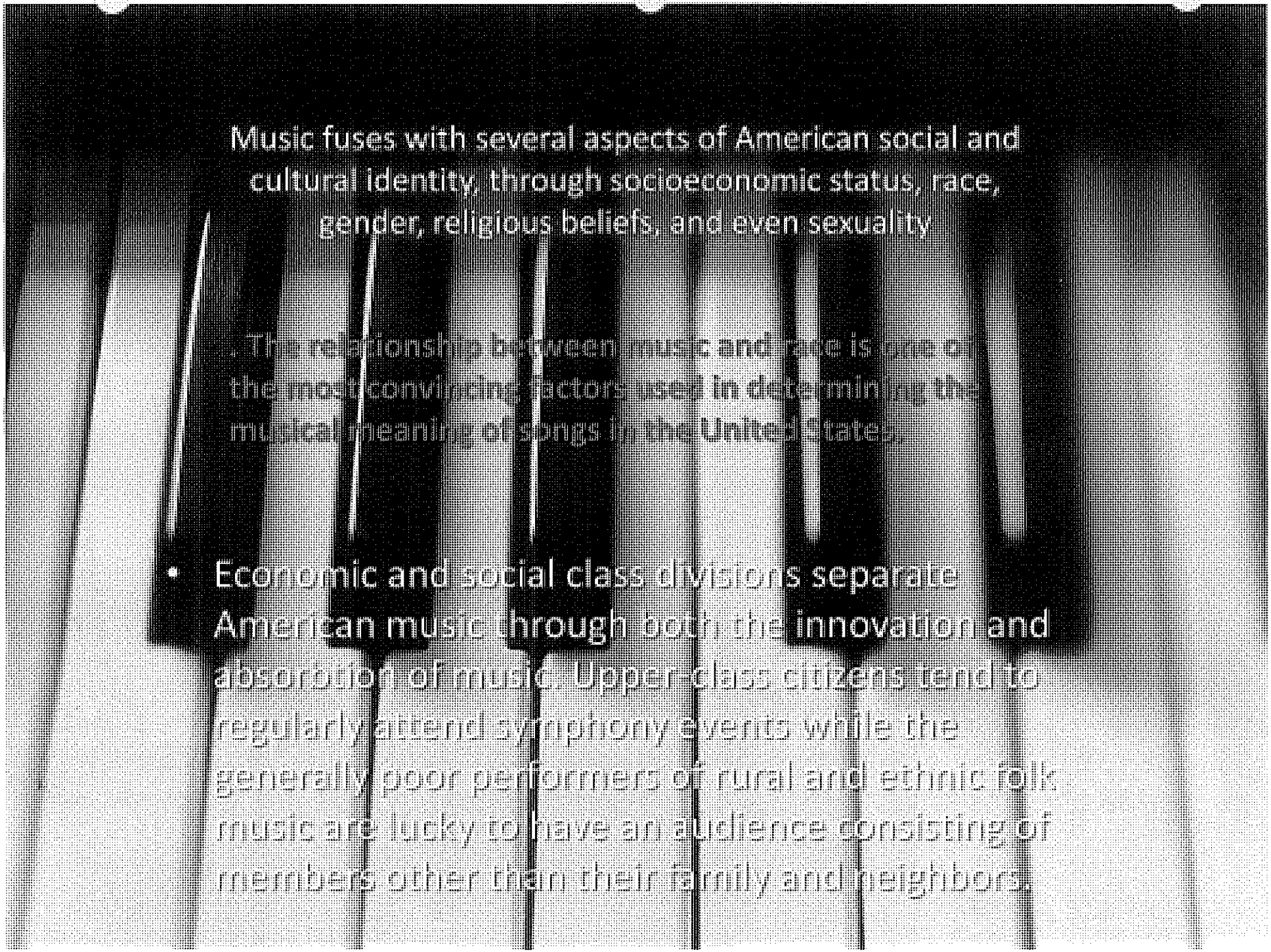
- Home to Colo, the world's first captive born gorilla. She is also the oldest captive gorilla, she celebrated her 50th birthday in 2006
- Over 1.8 million visitors yearly
- In 2009, USA Travel Guide named it #1 Zoo in America! YouTube - The Columbus Zoo " No More Number Two"
- WildLights: from November thru January the zoo is decked out with over 3 million lights!
- It is 580 acres of fun filled Zoo!!

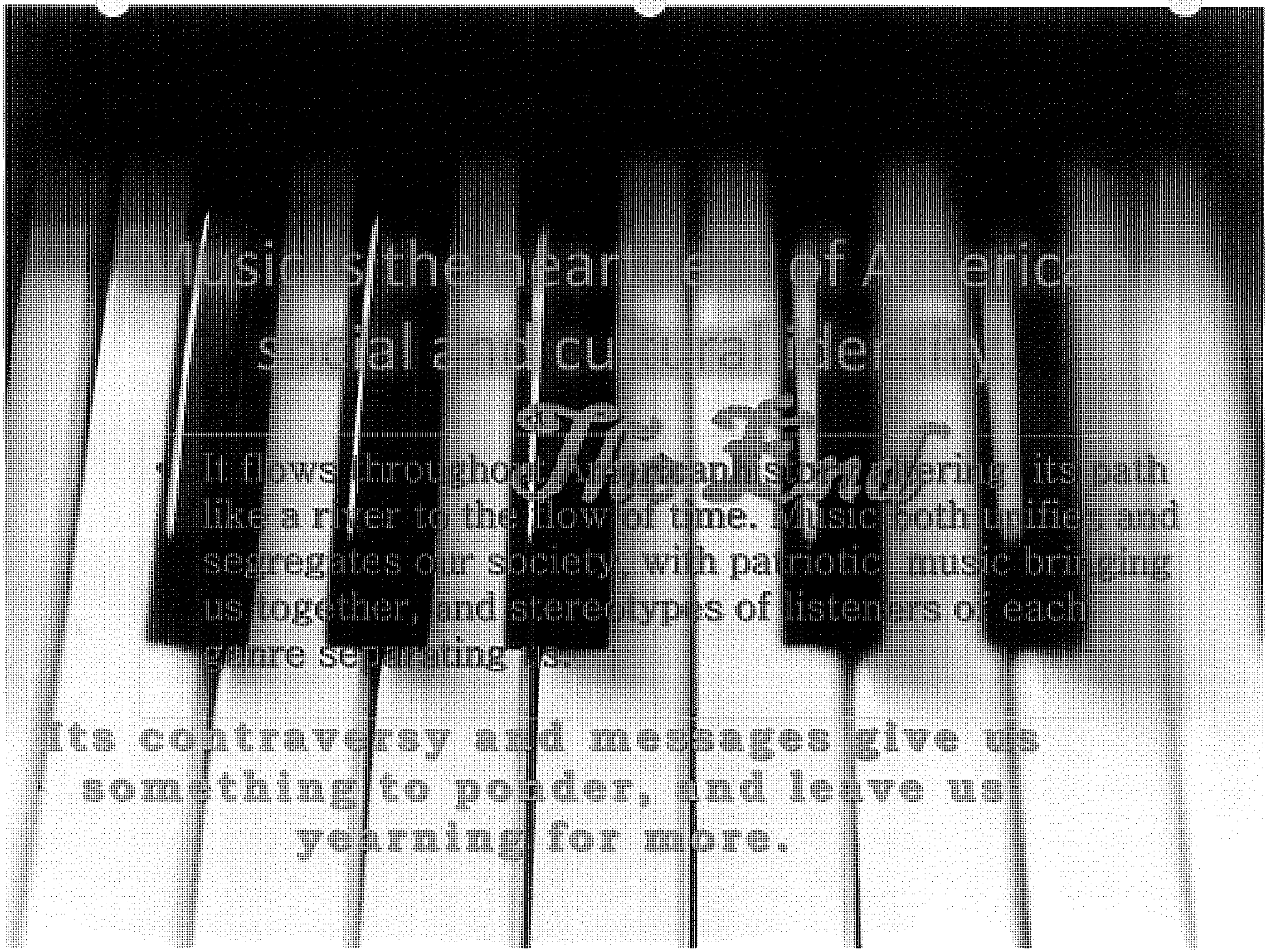
Why it is my favorite

- This zoo is close to my home
- Has many fun animal exhibits and aquarium
- During Christmas, the zoo is covered by millions of Christmas lights
- Has a water park (summer) and Ice Skating rink (winter) and a small theme park
- It holds a lot of good memories for me

Music and its Impact on American Society

By: Cindy Audia


Music fuses with several aspects of American social and cultural identity, through socioeconomic status, race, gender, religious beliefs, and even sexuality
. The relationship between music and race is one of the most convincing factors used in determining the musical meaning of songs in the United States.
• Economic and social class divisions separate American music through both the innovation and absorption of music. Upper-class citizens tend to regularly attend symphony events while the generally poor performers of rural and ethnic folk music are lucky to have an audience consisting of members other than their family and neighbors.


The End
It flows throughout American history, altering its path like a river to the flow of time. Music both unifies and segregates our society, with patriotic music bringing us together, and stereotypes of listeners of each genre separating us.
Its contraversy and messages give us something to ponder, and leave us yearning for more.

Program Assessment for BISM 2200 for 2010 - 2011

Course Outcomes

Course Outcomes	Direct Assessment Measure	Satisfactory Performance Standard
2200.1 Students should be able to understand the fundamental principles of Information Systems and recognize the effective use of information systems in a business environment.	Exam I, Quiz 1	C or better
2200.2 Students should be able to analyze a business problem or situation and determine how computer applications could be used to enhance the decision-making process.	Exam II, Quiz 2	C or better
2200.3 Students should be able to construct professional-quality, computer-generated documents to support a given business scenario. The application of the computer process should provide an effective and beneficial aid to the particular circumstances.	Presentation Project	C or better

Findings for BISM 2200 Business Information Tools

Fall 2010

Item	Points
MAX	100
MIN	0
AVERAGE	88

Summary Statistics

Criteria	Number of Students
>=90%	22
>=80%	15
>=70%	7
>=60%	
<60%	

Descriptive Statistics

- ✓ **Results: Satisfactory Performance Standard Achievement:** Met

- ✓ **Comments:** Two issues were observed during Fall 2010 semester. First, the current textbook covers too advanced topics so it is difficult for students follow the textbook directions, especially those who passed INFO 1100 (or BISM 1200) with a low grade or those who took INFO 1100 not recently. A new textbook should be adopted for BISM 2200. Second, generally students have excellent PowerPoint skills. Every single group made an excellent PPT files. Therefore, it is not a good idea to repeat PowerPoint in BISM 2200.

Spring 2011

Item	Points
MAX	100
MIN	0
AVERAGE	82

Summary Statistics

Criteria	Number of Students
>=90%	21
>=80%	10
>=70%	9
>=60%	
<60%	2

Descriptive Statistics

- ✓ **Results: Satisfactory Performance Standard Achievement:** Met

- ✓ **Comments:** A next textbook was adopted and used during spring 2011 semester, and it was very successful. The textbook contents and difficulty fitted with our students, and it helped the instructor to cover various topics in an organized way. One factor negatively influences students' grade in spring 2011 was canceling and absenting from classes due to heavy snows. PowerPoint skill is excellent while their oral presentation skill needs much improvement.

Show Outcomes Aligned with General Studies Outcomes - Attribute 1.F

Participating Area: BISM 2200 Business Information Tools
Summary: 5 of 10 items addressed.
Select Set: General Studies Outcomes - Attribute 1.F [Go]

Legend: Mapped Measure Added

BISM 2200 Business Information Tools Outcome Set

I.F. Technology Literacy

Students should develop technology skills that will help them in problem solving and decision making in their professional and personal lives. Students should be able to:

Outcome	Outcome I.F.1 - Introductory Analyze the impact of technology on careers, society, and culture.	Outcome I.F.1 - Reinforcement Analyze the impact of technology on careers, society, and culture.	Outcome I.F.2 - Introductory Demonstrate ability to use appropriate technology for problem solving and decision making. (Internet, email, listservs, multimedia presentations, etc.)	Outcome I.F.2 - Reinforcement Demonstrate ability to use appropriate technology for problem solving and decision making. (Internet, email, listservs, multimedia presentations, etc.)	Outcome I.F.3 - Introductory Evaluate and select new information resources and technology-based options for lifelong learning.	Outcome I.F.3 - Reinforcement Evaluate and select new information resources and technology-based options for lifelong learning.	Outcome I.F.4 - Introductory Use technology to enhance productivity and personal development	Outcome I.F.4 - Reinforcement Use technology to enhance productivity and personal development	Outcome I.F.5 - Introductory Use appropriate technologies to access information, process ideas, and communicate results.	Outcome I.F.5 - Reinforcement Use appropriate technologies to access information, process ideas, and communicate results.
Outcome 1.0 Fundamental of IS Students should be able to understand the fundamental principles of Information Systems and recognize the effective use of information systems in a business environment.		[View Detail]								[View Detail]
Outcome 2.0 Business Problem and decision making Students should be able to analyze a business problem or situation and determine how computer applications could be used to enhance the decision-making process.				[View Detail]						
Outcome 3.0 Applying IT Students should be able to construct professional-quality, computer-generated documents to support a given business scenario. The application of the computer process should provide an						[View Detail]		[View Detail]		

effective and [illegible]icial aid to the particular circ[illegible]unces.

Outcome I.F.1 - Introductory	Outcome I.F.1 - Reinforcement	Outcome I.F.2 - Introductory	Outcome I.F.2 - Reinforcement	Outcome I.F.3 - Introductory	Outcome I.F.3 - Reinforcement	Outcome I.F.4 - Introductory	Outcome I.F.4 - Reinforcement	Outcome I.F.5 - Introductory	Outcome I.F.5 - Reinforcement
I.F. Technology Literacy									
Students should develop technology skills that will help them in problem solving and decision making in their professional and personal lives. Students should be able to:									

APPENDIX XI

Advisory Board Membership

INFORMATION SYSTEMS MANAGEMENT PROGRAM

ADVISORY BOARD MEMBERS

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scook@galaxyglobal.com

APPENDIX XII

Adjunct Use

Course Enrollments for Courses Taught by Adjunct Faculty

INFORMATION SYSTEMS MANAGEMENT PROGRAM

ADJUNCT USE

COURSE ENROLLMENTS FOR COURSES TAUGHT BY ADJUNCT FACULTY

Academic Year	INFO 2200	INFO 2235	Total
2006-2007			
Fall	39	44	83
Spring	29	64	93
Total	68	108	
2007-2008			
Fall	37	48	85
Spring	39	46	85
Total	76	94	
2008-2009			
Fall	25	57	82
Spring	37	59	96
Total	62	116	
2009-2010			
Fall	36	63	99
Spring	37	56	93
Total	73	119	
2010-2011			
Fall	37	38	75
Spring	20	21	41
Total	57	59	
Total	336	496	832

INFORMATION SYSTEMS MANAGEMENT PROGRAM

ADJUNCT USE

PERCENTAGE OF ENROLLMENT TAUGHT BY ADJUNCT FACULTY

Academic Year	INFO 2200	INFO 2235	Total
2006-2007			
Fall	32%	24%	27%
Spring	24%	40%	33%
	28%	32%	
2007-2008			
Fall	38%	29%	32%
Spring	28%	32%	30%
	32%	30%	
Fall	16%	39%	27%
Spring	30%	25%	27%
	22%	30%	
2009-2010			
Fall	26%	35%	31%
Spring	23%	36%	29%
	24%	36%	
2010-2011			
Fall	39%	27%	32%
Spring	21%	14%	17%
	30%	20%	
Total	27%	30%	

APPENDIX XIII

Graduation/Retention Rates

Fairmont State University- First Time, Full Time Freshman Retention and Graduation Rates 1994-2010

Revision Date: 11/03/2010

			Year 2				Year 3				Year 4				Year 5			
			Fall	End of Year			Fall	End of Year			Fall	End of Year			Fall	End of Year		
			Enroll	Grad	Grad	Grad	Enroll	Grad	Grad	Grad	Enroll	Grad	Grad	Grad	Enroll	Grad	Grad	Grad
Year	Count	ACT		Bacc	Assoc	Both		Bacc	Assoc	Both		Bacc	Assoc	Both		Bacc	Assoc	Both
1994	468	19.9	72.4%	0.0%	0.2%	0.0%	60.5%	0.9%	1.5%	0.2%	52.8%	18.6%	3.0%	0.9%	34.6%	31.6%	3.9%	1.7%
1995	532	20.1	75.6%	0.0%	0.4%	0.0%	62.6%	0.4%	2.1%	0.0%	57.5%	11.1%	4.2%	0.2%	39.1%	26.9%	5.3%	2.1%
1996	536	20.1	72.9%	0.0%	1.3%	0.0%	58.2%	1.3%	2.0%	0.0%	52.2%	14.3%	3.0%	0.9%	32.7%	27.9%	3.9%	1.3%
1997	544	19.7	74.3%	0.2%	0.4%	0.0%	62.3%	0.7%	1.1%	0.0%	53.9%	10.8%	2.8%	0.0%	39.3%	30.0%	3.7%	0.9%
1998	567	19.6	73.9%	0.0%	0.0%	0.0%	58.6%	0.4%	0.9%	0.0%	52.6%	13.9%	3.0%	0.7%	34.3%	29.1%	5.1%	1.9%
1999	538	19.7	71.4%	0.0%	0.4%	0.0%	60.4%	1.5%	2.4%	0.0%	52.6%	13.2%	3.7%	1.9%	35.7%	28.8%	5.6%	1.7%
2000	592	19.4	70.2%	0.5%	0.0%	0.0%	60.0%	0.0%	2.2%	0.0%	51.2%	13.3%	4.1%	1.2%	34.1%	29.9%	5.9%	1.9%
2001	554	19.7	73.8%	0.0%	0.5%	0.0%	60.6%	0.4%	0.9%	0.0%	56.1%	10.8%	3.2%	0.4%	39.2%	26.4%	6.1%	1.4%
2002	661	20.0	72.2%	0.0%	0.3%	0.0%	62.6%	0.3%	1.8%	0.0%	56.3%	11.5%	5.6%	0.6%	39.3%	29.8%	7.7%	1.5%
2003	620	19.6	72.4%	0.0%	0.5%	0.0%	61.3%	0.2%	1.6%	0.0%	55.6%	13.5%	4.7%	0.8%	37.1%	29.8%	8.2%	2.4%
2004	600	20.6	73.0%	0.0%	1.0%	0.0%	60.8%	0.2%	3.8%	0.0%	52.2%	15.0%	6.7%	1.2%	32.2%	29.5%	9.0%	2.8%
2005	694	20.7	68.9%	0.0%	1.4%	0.0%	56.9%	0.4%	3.9%	0.0%	49.4%	14.4%	8.1%	1.7%	29.5%	26.7%	11.0%	3.6%
2006	648	21.0	70.4%	0.0%	0.8%	0.0%	59.0%	0.5%	3.2%	0.0%	50.6%	13.7%	6.3%	0.5%	31.3%			
2007	632	20.9	67.4%	0.0%	1.4%	0.0%	56.6%	0.3%	3.8%	0.2%	50.9%							
2008	757	20.7	65.1%	0.0%	1.1%	0.0%	55.7%											
2009	800	20.4	66.5%															
2010	767	20.6																
AVERAGE	618.4	20.2	71.3%	0.0%	0.6%	0.0%	59.7%	0.5%	2.2%	0.0%	53.1%	13.4%	4.5%	0.8%	35.3%	28.9%	6.3%	1.9%

			Year 6				Year 7				Transfers Out*			
			Fall	End of Year			Fall	End of Year			Enrolled Other		Graduated Other	
			Enroll	Grad	Grad	Grad	Enroll	Grad	Grad	Grad				
Year	Count	ACT		Bacc	Assoc	Both		Bacc	Assoc	Both	Count	Pct	Count	Pct
1994	468	19.9	15.6%	37.2%	3.9%	2.4%	7.7%	39.7%	4.1%	2.6%				
1995	532	20.1	17.5%	36.8%	5.3%	2.6%	8.1%	40.9%	5.5%	2.6%				
1996	536	20.1	14.9%	34.0%	4.1%	1.7%	8.0%	37.9%	6.0%	3.3%				
1997	544	19.7	16.9%	36.8%	5.9%	2.0%	11.8%	39.2%	7.2%	2.4%	27	5.0%	11	2.0%
1998	567	19.6	14.3%	36.3%	5.5%	2.1%	9.3%	38.8%	6.2%	3.2%	9	1.6%	6	1.1%
1999	538	19.7	16.8%	36.6%	7.6%	2.6%	10.8%	39.4%	8.6%	3.0%	28	5.2%	11	2.0%
2000	592	19.4	18.6%	36.0%	7.3%	2.9%	10.3%	39.0%	8.1%	3.5%	29	4.9%	15	2.5%
2001	554	19.7	21.8%	35.7%	7.6%	1.8%	9.0%	38.7%	9.2%	2.5%	21	3.8%	12	2.2%
2002	661	20.0	18.2%	39.3%	9.2%	2.9%	8.5%	42.1%	9.5%	3.0%	22	3.3%	19	2.9%
2003	620	19.6	15.0%	35.6%	9.5%	2.9%	8.4%	38.2%	10.6%	3.7%	18	2.9%	3	0.5%
2004	600	20.6	13.8%	35.0%	11.2%	4.2%	9.3%				22	3.7%	1	0.2%
2005	694	20.7	15.6%								27	3.9%	1	0.1%
2006	648	21.0									26	4.0%	0	0.0%
2007	632	20.9												
2008	757	20.7												
2009	800	20.4												
2010	767	20.6												
AVERAGE	618.4	20.2	16.6%	36.3%	7.0%	2.6%	9.2%	39.4%	7.5%	3.0%	22.9	3.8%	7.9	1.3%

Fairmont State University - Fall Semester Transfer-In Cohorts

Revision Date: 11/17/2010

		Year 1							Year 2							Year 3							Year 4						
		Fall Enrolled			End of Year			Percent	Fall Enrolled			End of Year			Percent	Fall Enrolled			End of Year			Percent	Fall Enrolled			End of Year			Percent
Fall	Cohort	Level		Retention	Completed with a:			Assoc or	Level		Retention	Completed with a:			Assoc or	Level		Retention	Completed with a:			Assoc or	Level		Retention	Completed with a:			Assoc or
Year	Size	CC	UG	Rate	Cert	Assoc	Bach	Bach Deg	CC	UG	Rate	Cert	Assoc	Bach	Bach Deg	CC	UG	Rate	Cert	Assoc	Bach	Bach Deg	CC	UG	Rate	Cert	Assoc	Bach	Bach Deg
2004	251	0	251	100.0%	2	0	3	1.2%	9	161	67.7%	3	6	23	11.6%	1	118	47.4%	5	10	59	27.5%	0	75	29.9%	6	10	103	45.8%
2005	271	0	271	100.0%	5	0	4	1.5%	5	172	65.3%	10	10	18	10.3%	7	125	49.8%	12	21	55	28.0%	6	70	28.8%	13	26	79	38.7%
2006	235	0	235	100.0%	11	0	2	0.8%	6	144	63.6%	15	11	15	11.0%	4	105	46.2%	20	23	38	25.8%	3	70	30.9%	0	31	65	40.7%
2007	225	0	225	100.0%	7	3	3	2.7%	6	148	68.4%	11	16	19	15.5%	5	100	46.7%	12	21	51	32.0%	1	53	24.0%				
2008	240	0	240	100.0%	14	5	8	5.4%	8	144	63.3%	11	16	18	14.2%	11	95	44.6%											
2009	438	0	438	100.0%	8	3	3	1.4%	13	289	68.9%																		
2010	494	0	494	100.0%																									
Average	307.86	0.00	307.86	100.0%	7.83	1.83	3.83	2.2%	7.83	176.33	66.2%	10.50	11.50	18.50	12.5%	5.50	109.40	46.9%	12.25	18.75	50.75	28.3%	2.50	67.00	28.2%	6.33	22.33	82.33	41.5%

Fairmont State University - Fall Semester Admission Categories: Other and Re-Admits Cohorts

Revision Date: 01/21/2011

		Year 1							Year 2							Year 3							Year 4						
		Fall Enrolled			End of Year			Percent	Fall Enrolled			End of Year			Percent	Fall Enrolled			End of Year			Percent	Fall Enrolled			End of Year			Percent
Fall	Cohort	Level		Retention	Completed with a:			Assoc or	Level		Retention	Completed with a:			Assoc or	Level		Retention	Completed with a:			Assoc or	Level		Retention	Completed with a:			Assoc or
Year	Size	CC	UG	Rate	Cert	Assoc	Bach	Bach Deg	CC	UG	Rate	Cert	Assoc	Bach	Bach Deg	CC	UG	Rate	Cert	Assoc	Bach	Bach Deg	CC	UG	Rate	Cert	Assoc	Bach	Bach Deg
2004	214	0	214	100.0%	3	2	11	6.1%	2	98	46.7%	3	9	21	14.0%	3	60	29.4%	5	16	31	19.2%	4	42	21.5%	5	18	42	28.0%
2005	269	0	269	100.0%	5	2	16	6.2%	8	108	40.1%	8	10	29	13.5%	5	68	25.3%	10	18	44	21.5%	4	47	17.6%	11	21	55	26.3%
2006	225	0	225	100.0%	5	1	17	8.0%	1	80	36.0%	6	11	26	16.4%	4	45	21.8%	6	14	38	23.1%	3	33	16.0%	7	16	50	29.3%
2007	229	0	229	100.0%	1	11	17	12.2%	3	82	37.1%	5	6	22	12.2%	4	52	24.5%	6	12	38	21.8%	1	34	15.3%				
2008	209	0	209	100.0%	2	5	15	7.2%	4	86	40.2%	6	12	21	15.8%	3	58	29.2%											
2009	207	0	207	100.0%	2	2	23	12.1%	4	88	44.4%																		
2010	297	0	297	100.0%																									
Average	238.57	0.00	238.57	100.0%	3.00	3.83	15.67	8.6%	3.67	89.33	40.8%	5.50	9.50	23.50	14.4%	3.80	56.60	26.0%	6.75	13.50	37.75	21.4%	3.00	39.00	17.6%	7.67	18.33	49.50	27.9%

APPENDIX XIV

Faculty Data

Faculty Data

Name: Rebecca J. Giorcelli Rank: Associate Professor

Check One:

Full-time ☑ Part-time_____ Adjunct_____ Graduate Asst._____

Highest Degree Earned: Ph.D. Date Degree Earned: May 1995

Conferred by: College of Engineering, West Virginia University

Area of Specialization: Industrial Engineering

Professional registration/licensure: _____ Yrs. of employment at present institution: 6.5

Yrs. of employment in higher education: 7 Yrs. of related experience outside higher education: 10

Non-teaching experience: 10

To determine compatibility of credentials with assignment:

(a) List courses you taught this year and those you taught last year: (If you participated in team-taught courses, indicate each of them and what percent of course you taught.) For each course include year and semester taught, course number, course title, and enrollment.

Fall Semester 2006

Course Number	Course Title	Enrollment
INFO 2235	Microcomputer Applications in Business	24
INFO 3339	Programming/Data/File Structures	24
INFO 3340	Advanced Application Development	12
INFO 3399	Special Topics in Information Systems	4

Spring Semester 2007

Course Number	Course Title	Enrollment
INFO 2235	Microcomputer Applications in Business	21
INFO 3339	Programming/Data/File Structures	20
INFO 3340	Advanced Application Development	16
INFO 4430	Special Topics in Information Systems	5
INTR 1199	SPACE – Special Project	3

Summer Semester 2007

Course Number	Course Title	Enrollment
N/A		

Fall Semester 2007

Course Number	Course Title	Enrollment
INFO 3339	Programming/Data/File Structures	16
INFO 3340	Advanced Application Development	13
MSBA 5810	Project Management	10
MSBA 5810	Project Management	14

Spring Semester 2008

Course Number	Course Title	Enrollment
INFO 3340	Advanced Application Development	18
INFO 1199	Algorithms & Quantitative Applications in IS	7
	Half-time Research Release	

Summer Semester 2008

Course Number	Course Title	Enrollment
N/A		

Fall Semester 2008

Course Number	Course Title	Enrollment
INFO 1199	Algorithms & Quantitative Applications in IS	10
INFO 3339	Programming/Data/File Structures	5
INFO 3340	Advanced Application Development	9
INFO 3350	Internship for Information Systems	8
INFO 4420	Database Design & Implementation	1
INFO 4430	Advanced Topics in Information Systems	3
	Quarter Release for IS Coordination & ABET Activities	

Spring Semester 2009

Course Number	Course Title	Enrollment
INFO 1199	Algorithms & Quantitative Applications in IS	11
INFO 2235	Micro Computer Applications in Business	25
INFO 3339-01	Programming/Data/File Structures	5
INFO 3340-01	Advanced Application Development	7
INFO 3350-01	Internship for Information Systems	7
INFO 4998-01	Undergraduate Research	2

Summer Semester 2009

Course Number	Course Title	Enrollment
INFO 3350	Internship for Information Systems	2

Fall Semester 2009

Course Number	Course Title	Enrollment
INFO 1199	Algorithms & Quantitative Applications in IS	16
INFO 3339	Programming/Data/File Structures	3
INFO 3350-01	Internship for Information Systems	5
INFO 4998-01	Undergraduate Research	1
	Quarter Release for NSF ACCELERATE Research Project	

Spring Semester 2010

Course Number	Course Title	Enrollment
INFO 1199	Algorithms & Quantitative Applications in IS	3
INFO 3339	Programming/Data/File Structures	13
INFO 3350	Internship for Information Systems	4
	Quarter Release for NSF ACCELERATE Research Project	

Summer Semester 2010

Course Number	Course Title	Enrollment
N/A		

Fall Semester 2010

Course Number	Course Title	Enrollment
BISM 1200	Introduction to Computing	24
BISM 3000	Business Programming Logic	20
BISM 4900	Internship in IS	5
BISM 4998	Undergraduate Research in Information Systems Honors (3 hours)	1
	Quarter Release for NSF ACCELERATE Research Project	

Spring Semester 2011

Course Number	Course Title	Enrollment
BISM 1200-01	Introduction to Computing	16
BISM 1200-02	Introduction to Computing	20
BISM 4800	Information Systems Project Management	10
BISM 4900	Internship in IS	2
BISM 4998	Undergraduate Research in Information Systems Honors (3 hours)	1
BISM 4998	Undergraduate Research in Information Systems Honors (6 hours)	1

(b) If degree is not in area of current assignment, explain:

My degrees are in Industrial Engineering (IE). Information Systems (IS) was a relatively new area during my graduate education. IS involves an understanding of technology systems coupled with a business core background which is very similar to IE. My doctoral research focus and 10 years of experience in the field are in the areas of project management and best practices for software managers which are a major focus for the IS degree at Fairmont State University

(c) Identify your professional development activities during past five years.

Program Development - Collaborated with Mr. John Thompson, President/Owner of Mobile Collaborative Education Consulting (MCEC) to develop curricula within the ISM department as related to the IBM Enterprise System Program and ultimately established a formal partnership between Fairmont State University and the IBM Academic Initiative in 2010-2011.

Authored the new Information Systems Management Major and Minor Curriculum Proposals which were both approved in for implementation in the Fall 2010 and Fall 2011 semesters respectively.

Training Seminar - Association to Advance Collegiate Schools of Business (AACSB) Teaching Effectiveness Seminar, Tampa, FL, November 5 – 6, 2009.

Faculty Development Training Sessions - NSF Days in West Virginia Workshop, Morgantown, WV, 12/04/07; Principal Investigator/Grant's Manager Workshops with Phil Mason and Sandy Shriver, 09/07/07; Teaching for Diversity and Social Justice with Mr. Larri Mazon – 08/15/07; The ABC's of Academic Advising with Alissa Wilmoth – 08/14/07; Project Management Professional Training – July 16-17, 2007; Principal Investigator/Grant's Manager Workshops Phil Mason and Sandy Shriver, 04/13/07; The Power of Course-based Assessment with Virginia S. Lee, Ph.D. – 01/10/07; From Course-based Assessment to the Scholarship of Teaching and Learning with Virginia S. Lee, Ph.D. – 01/10/07; Integrated Course Design, General Model with L. Dee Fink, Ph.D. and Virginia S. Lee, Ph.D. – 01/08/07; Why Undergraduate Research? 8/17/06; Where Neurosciences and Pedagogy Intersect to Support Student Learning -8/15/06; Is an Attendance Requirement Necessary in Today's College Classroom? 8/15/06; Interdisciplinary Academic Learning Community (IALC) Workshop, 1/20/06; Milwaukee's Alverno College Workshop on Learning Communities, January 12 – 13, 2006

Professional Memberships

2009 - Association of Computing Machinery (ACM)
2008 - International Association of Computer Information Systems (IACIS)
2008 - Association of Information Systems (AIS)
2007 – Project Management Institute (PMI)

(d) List awards/honors (including invitations to speak in your area of expertise) or special recognition in the last five years.

Awards

Fairmont State University Harold & Roselyn Strait Teaching Award (2010-2011)
Fairmont State University Faculty Recognition Award (2009-2010)

Invitations to Speak

Revitalizing the Information Systems Curriculum through Multi-disciplinary Experiences: *A Focus on Collaboration among Undergraduate Computing Disciplines and Industry, International Association for Computer*

Information Systems 2010 Annual Conference, Las Vegas, NV, October 5 - 9, 2010. (Lead Author: Giorcelli; Co-authors: Frank Lee and Joe Blankenship)

The Impact of Social Networking Sites Experiences on Academic Performance in General MIS Classes, *International Association for Computer Information Systems 2010 Annual Conference,* Las Vegas, NV, October 5 - 9, 2010. (Lead Author: Frank Lee; Co-authors: Rebecca Giorcelli and Joe Blankenship)

Finding an Answer to the Enrollment Crisis in Computing: An ExPEDITE Project Case Study, invited presentation, *Decision Sciences Institute 41st Annual Meeting* in San Diego, Nov 2010 (Lead Author: Giorcelli; Co-authors: Frank Lee and Marjorie Darrah)

Factors Influencing the Virtual Group Participation, invited presentation, *ISOneWorld Conference 2011*, Las Vegas, NV, April 2011. (Lead Author: Frank Lee; Co-authors: Rebecca Giorcelli and Mahmood Hossain)

Cloud Utilization: Academia and Industry Collaboration in the Cloud, invited presentation, *WV 2010 Statewide Technology Conference,* Charleston, WV, USA, August 3 - 5, 2010.

Bridging the Gap from Education to Business with Experiential Learning Opportunities: An Information Systems Student Organization Case Study, invited presentation, *49th Annual International Association for Computer Information Systems (IACIS) Conference*, Pittsburgh, PA, USA, September 30 - October 3, 2009.

Fostering Independent Learners of IS in the 21st Century through Integrated Educational Technologies, invited paper presentation, 15th Americas Conference on Information Systems (AMCIS), San Francisco, CA, August 5 – 9, 2009.

Synchronizing with Industry to Revitalize the Information Systems Curriculum, invited paper presentation, 48th Annual International Association for Computer Information Systems Conference, Savannah, Georgia, October 1–4, 2008.

Middle School Math Teacher Professional Development and Online Learning Communities via Blackboard Vista, invited presentation ,WV Higher Education Technology Conference, Morgantown, WV, September 29 – October 1, 2008

Curriculum Decisions: Assessing and Updating IS Curriculum, invited paper presentation, 14th Americas Conference on Information Systems (AMCIS), Toronto, Canada, August 14 – 17, 2008.

Promoting Information Technology Disciplines: Students, Educators and Industry Professionals Working Together toward a Common Goal, poster presentation at the 8th Annual Hawaii International Conference on Business (Honolulu, Hawaii, USA - May 2008).

Algorithms for a Public Grid Infrastructure, Posters on the Hill Event sponsored by Council for Undergraduate Research (Washington, D.C., USA - April 2008).

A Comprehensive Program for Expanding Pathways to IT Careers, paper presentation at the 8th ACM SIGITE Conference on Information Technology Education (Destin, Florida, USA - October 2007).

A Research Study of New Computing Algorithms for a Public Grid Infrastructure, Star Symposium sponsored by West Virginia EPSCoR program (Morgantown, WV, USA - September 2007).

Development of a Web-Based Information Management System for Kappa Omicron (local chapter of Delta Mu Delta, International Honor Society in Business Administration), FSU Celebration of Student Scholarship with advisees Steve Cook, Eric Bee, James Mou, and Jeff Jacobs (Fairmont, WV, USA - April 2007).

Development of an On-line Information Management System to Support Application Processing and Data Management, Celebration of Student Scholarship with advisee Steve Cook (Fairmont, WV, USA - April 2007).

A Web-Based Information Management System for Kappa Omicron (local chapter of Delta Mu Delta, International Honor Society in Business Administration), Undergraduate Research Day at the Capitol (Charleston, WV, USA – February 2007).

ExPEDITE Faculty Fellowship Program Round Table Discussion, NSF Advanced Technological Education Conference (Washington, D.C., USA - October 2006).

Microsoft Outlook Training - Using Outlook to Improve Efficiency-Simple Tools That Save Time, FSU Faculty Development (Fairmont, WV, USA - August 2006).

Mapping Information Technology/21st-Century Skills from K-12 through Higher Education, FSU Faculty Development (Fairmont, WV, USA - August 2006).

(e) List professional books/papers published during the last five years.

Giorcelli, R., Lee, C., and Blankenship, J., "Revitalizing the Information Systems Curriculum through Multi-disciplinary Experiences: *A Focus on Collaboration among Undergraduate Computing Disciplines and Industry*", *IACIS 2010 Proceedings.*

Lee, C., Giorcelli, R. and Blankenship, J., "The Impact of Social Networking Sites Experiences on Academic Performance in General MIS Classes", *International Association for Computer Information Systems 2010 Annual Conference Proceedings.*

Giorcelli, R., Lee, C., and Darrah, M.,"Finding an Answer to the Enrollment Crisis in Computing: An ExPEDITE Project Case Study", Decision Sciences Institute 41st Annual Meeting Conference Proceedings.

Lee, C., Giorcelli, R., Hossain, M., Factors Influencing the Virtual Group Participation, ISOneWorld Conference Proceedings 2011.

Giorcelli, R. and Blankenship, J., "Bridging the Gap from Education to Business with Experiential Learning Opportunities: An Information Systems Student Organization Case Study", *IACIS 2009 Proceedings.* Page 52. http://www.iacis.org/pdf/2009_Program.pdf

Giorcelli, R. and Blankenship, J., "Fostering Independent Learners of IS in the 21st Century through Integrated Educational Technologies", (2009). *AMCIS 2009 Proceedings.* Paper 793. http://aisel.aisnet.org/amcis2009/793

Giorcelli, R. and Dodson, T., "Synchronizing with Industry to Revitalize the Information Systems Curriculum", Proceedings for the 48th Annual International Association for Computer Information Systems (IACIS) Conference (Savannah, Georgia, USA, October 1 – 4, 2008). p. 79. http://www.iacis.org/pdf/2008_Program.pdf

Dodson, Tracie M. and Giorcelli, Rebecca J., "Curriculum Decisions: Assessing and Updating IS Curriculum" (2008). *AMCIS 2008 Proceedings* for the 14th Americas Conference on Information Systems. (Toronto, Canada, August 14 – 17, 2008). Paper 124. http://aisel.aisnet.org/amcis2008/124

Giorcelli, R. and Dodson, T., "Promoting Information Technology Disciplines: Students, Educators and Industry Professionals Working Together Toward a Common Goal", Proceedings of the 8th Annual Hawaii International Conference on Business. (Honolulu, Hawaii, USA, May 22 – 25, 2008).

Darrah, M., Giorcelli, R., and Dodson, T., "A comprehensive program for expanding pathways to IT careers", Proceedings of the 8th ACM SIGITE Conference on information Technology Education (Destin, Florida, USA, October 18 - 20, 2007). SIGITE '07. ACM, New York, NY, pp. 195-200. http://doi.acm.org/10.1145/1324302.1324344

Giorcelli, RJ and Pullum, LL, "Handling the Effects of Complexity in Space Elevator Requirements", Journal of the British Interplanetary Society (JBIS), 59(9), September 2006, pp. 319 – 323.

(f) List externally funded research (grants and contracts) during last five years.

A Study of Large Dataset Accessibility Using Mobile Devices, $5000 NASA Space Grant Scholars Faculty Award, Fall 2010 - Spring 2011.

Advancing Computing Curricula and Expanding Learning Experiences through Re-engineered and Accelerated Technology Education (ACCELERATE),$149,915 National Science Foundation award, August 2008–July 2010.

Expanding Pathways for Educational Development and Information Technology Experiences (ExPEDITE),$192,714 National Science Foundation award (FSU award: $125,649; Pierpont award: $67,065) November 2005 – August 2009.

A Web-based Collaborative Virtual Environment for NASA IV&V,$15,000 NASA West Virginia Space Grant Consortium Research Initiation Grant, May 2007 – June 2009.

Learning Formative Assessment Systems & Technologies II (Learning FAST II),$72,504 WVHEPC Title II grant, June 2007 – May 2008.

Learning Formative Assessment Systems & Technologies Program (Learning FAST), $56,051 WVHEPC Title II grant, June 2006 – May 2007.

Faculty Data

Name: Joseph C. Blankenship Rank: Associate Professor
Check One:

Full-time__X__ Part-time_____ Adjunct_____ Graduate Asst._____

Highest Degree Earned: Doctor of Information Systems and Communications Date Degree Earned: 2004

Conferred by: Robert Morris University

Area of Specialization: Information Systems

Professional registration/licensure: _____ Yrs. of employment at present institution: 4
Yrs. of employment in higher education: 18 Yrs. of related experience outside higher education: 16
Non-teaching experience: _____

To determine compatibility of credentials with assignment:

(a) List courses you taught this year and those you taught last year: (If you participated in team-taught courses, indicate each of them and what percent of course you taught.) For each course include year and semester taught, course number, course title, and enrollment.

Summer Semester 2008

Course Number	Course Title	Enrollment
INFO 2200	Fundamentals of Information Systems	6

Fall Semester 2008

Course Number	Course Title	Enrollment
INFO 2200	Fundamentals of Information Systems	29
INFO 2200	Fundamentals of Information Systems	27
INFO 2200	Fundamentals of Information Systems	32
INFO 3310	Systems Analysis and Design	13
INFO 3350	Internship for Information Systems	8
MSBA 5200	Management Information Systems	28

Spring Semester 2009

Course Number	Course Title	Enrollment
INFO 2200	Fundamentals of Information Systems	22
INFO 2200	Fundamentals of Information Systems	26
INFO 2200	Fundamentals of Information Systems	21
INFO 2235	Micro Computer Applications iu Business	25
INFO 3310	Systems Analysis and Design	4
INFO 4420	Database Design and Implementation	15

Summer Semester 2009

Course Number	Course Title	Enrollment

Fall Semester 2009

Course Number	Course Title	Enrollment
INFO 2200	Fundamentals of Information Systems	30

INFO 2200	Fundamentals of Information Systems	**30**
INFO 2200	Fundamentals of Information Systems	**30**
INFO 2200	Fundamentals of Information Systems	**30**
INFO 3310	Systems Analysis and Design	**10**
MSBA 5200	Management Information Systems	24

Spring Semester 2010

Course Number	Course Title	Enrollment
INFO 2200	Fundamentals of Information Systems	24
INFO 2200	Fundamentals of Information Systems	28
INFO 2200	Fundamentals of Information Systems	21
INFO 2200	Fundamentals of Information Systems	24
INFO 2220	Spreadsheet Design	5
INFO 3310	Systems Analysis and Design	10
INFO 4430	Advanced Topics in Information Systems	3

Summer Semester 2010

Course Number	Course Title	Enrollment
INFO 2200	Fundamentals of Information Systems	**9**

Fall Semester 2010

Course Number	Course Title	Enrollment
BISM 2400	**Operating Systems Concepts**	**24**
BISM 4000	**Global, Econ, Ethical, and Social Information Systems**	**8**
BISM 4200	**Systems Analysis and Design**	**6**
INFO 2235	**Micro Computer Applications in Business**	**17**
MSBA 5200	**Management Information Systems**	**27**

Spring Semester 2011

Course Number	Course Title	Enrollment
BISM 2600	**Intermediate Accounting II**	**15**
INFO 2200	Fundamentals of Information Systems	29
INFO 2200	Fundamentals of Information Systems	25

Summer Semester 2011

Course Number	Course Title	Enrollment

(b) If degree is not in area of current assignment, explain:

N/A; My degree is in my area of current assignment.

(c) Identify your professional development activities during past five years.

1. Continuing Professional Education completed to maintain certification:

AACSB Accreditation Training-2009
ACBSP Conference-2008
ACBSP Conference-2009
Pittsburgh Technology Council Summit on STEM education and careers-2010
ABET Conference and Summit-2008
AACSB Teaching Summit-2009
AACSB Summit on Assessment-2011
AACSB Regional Meeting-2011

2. Faculty Professional Development attended at Fairmont State University:

"Using Clickers to Assess and Engage Student Learning", Magna Online Seminars, November 4, 2009
"MFT:The Results are In! Now What?", ETS Webinar, December 8, 2009
"First Aid/CPR Training", Faculty Development Week, January 11, 2009
"Emergency Guide Awareness Training", Faculty Development Week, January 12, 2009
"Using FSU's Student Response System: Let Them Talk . . . and Listen!" Faculty Development Week, August 18 and 19, 2008
"WV Deli: Serving up a Smorgasbord of Digital Entertainment and Library Information", Faculty Development Week, August 18 and 19, 2008
"A Guide for Faculty on Responding to Students in Distress", Keynote Speaker Brett Sokolow, Faculty Development Week, August 18 and 19, 2008
"Copyright Compliance: Rules for Course Design", Faculty Development Week, August 18 and 19, 2008

"New Faculty Orientation", August 12 and 13, 2008
"Blackboard/Vista Online Course Management System Training", August 14, 2008
"What the Best College Teachers Do", Keynote Speaker Ken Bain, Spring Faculty Workshop, January 12, 2009

(d) List awards/honors (including invitations to speak in your area of expertise) or special recognition in the last five years.

N/A

(e) Indicate any other activities which have contributed to effective teaching.

Textbook Advisory Committee-2009-2011
Textbook Affordability Sub-Committee-2009-2011-Chair-Fall 2010-Fall 2011
Faculty Senate-School of Business Senator-2008-Present
Faculty Senate Executive Committee- Secretary - Fall 2009-Fall2010-Member at Large- Present Fall 2010-Fall 2011
IRB committie-2008-present
Annual President review committee-2010
Committee on Committees
Faculty Senate-Constitution and By-Laws Revision Committee
FSU Laptop project committee
Information Systems Department Curriculum Committee
School of Business Curriculum Core Review Committee
School of Business Assessment Committee
Information Systems Department Assessment Committee
Co-coordinator of the Information Systems Management Program

Coordinator of International Studies for the School of Business
Reviewer for International Association of Information Systems (IACIS)-2008, 2009 & 2010
Reviewer for International Journal of the Academic Business World, Journal of Academic Administration in Higher Education, Journal of Learning in Higher Education-2009, 2010, & 2001

(f) List professional books/papers published during the last five years

2010- Presented – International Association of Information Systems (IACIS)
2009 -Presented and Published - Americas Conference on Information Systems (AMCIS)
Fostering Independent Learners of Information Systems in the 21st Century
Through Integrated Educational Technologies
Educating Students with the Perception that Technology is Too Complex to Learn
2004 – Presented and Published – International Association for Computer Information Systems (IACIS)
Realizing Business and Competitive IQ through Business Performance Management
Today's competitive business environments require business organizations to employ every method at their disposal in order to understand their internal and external business environments. Business organizations no longer can sustain a competitive advantage for a prolonged period without proactively collecting and analyzing business intelligence (BI) and competitive intelligence (CI) to manage their businesses performance (BPM) in real-time. A linear quantitative approach will support the qualitative portion of the study. Many leading business research firms have stated that numerous business organizations do not understand the current need for them to incorporate real-time (BI), (CI), and BPM in conjunction with their strategic business plan to gain or maintain a competitive advantage.
2008– Accepted – International Conference on Knowledge, Culture, and Change in Organizations
Getting Serious About Experiential Learning
The proposal and paper outline and discuss the changes business organizations are currently undergoing and their need for college graduates to step directly into business as a productive professional. To do this the proposal and paper examine what can be done at the college level to provide students with practical experience in their field study.
2003 - Pittsburgh Hospital News
E-Provisioning Cuts Administrative Costs, Improves Asset Control
This article demonstrated how healthcare environments within the Pittsburgh, PA region and throughout the United States could control assets and address the reporting and information security requirements mandate by the HIPPA.
2003 - Data Center Management
E-Provisioning Cuts Administrative Costs, Improves Asset Control
This article provided data center managers nationally and internationally with a guide to assert control, data security, system and user access, enterprise integration, and reporting requirements.

(g) List externally funded research (grants and contracts) during last five years.

N/A

Faculty Data

Name: C. Frank Lee Rank: Assistant Professor

Check One:

Full-time__X__ Part-time_____ Adjunct_____ Graduate Asst._____

Highest Degree Earned: Doctor of Business Administration Date Degree Earned: December 2006

Conferred by: Mississippi State University

Area of Specialization: Management Information Systems

Professional registration/licensure: _____ Yrs. of employment at present institution: 3

Yrs. of employment in higher education: 12 Yrs. of related experience outside higher education: 2

Non-teaching experience: 5

To determine compatibility of credentials with assignment:

(h) List courses you taught this year and those you taught last year: (If you participated in team-taught courses, indicate each of them and what percent of course you taught.) For each course include year and semester taught, course number, course title, and enrollment.

Fall Semester 2009

Course Number	Course Title	Enrollment
INFO 2235	Microcomputer Applications in Business	25
INFO 2235	Microcomputer Applications in Business	25
INFO 2235	Microcomputer Applications in Business	20
INFO 3340	Advanced Application Development	6

Spring Semester 2010

Course Number	Course Title	Enrollment
INFO 2235	Microcomputer Applications in Business	24
INFO 2235	Microcomputer Applications in Business	25
INFO 2235	Microcomputer Applications in Business	19
INFO 4420	Database Design and Implementation	18

Summer Semester 2010

Course Number	Course Title	Enrollment
INFO 2235	Microcomputer Applications in Business	15

Fall Semester 2010

Course Number	Course Title	Enrollment
INFO 2235	Microcomputer Applications in Business	24
INFO 2235	Microcomputer Applications in Business	23
BISM 2200	Business Information Tools	15
BISM 3400	Database Design and Development	26

Spring Semester 2011

Course Number	Course Title	Enrollment
INFO 2235	Microcomputer Applications in Business	22
INFO 2235	Microcomputer Applications in Business	23
BISM 2200	Business Information Tools	15
BISM 3600	E-commerce and Web Development Strategy	18

Summer Semester 2011

Course Number	Course Title	Enrollment
BISM 2200	Business Information Tools	15

(i) **If degree is not in area of current assignment, explain:**

N/A; My degree is in my area of current assignment.

(j) **Identify your professional development activities during past five years.**

3. Completed Doctor of Business Administration degree with a major in Management Information Systems from Mississippi State University in December 2006. My dissertation was entitled, "An Empirical Study of Organizational Ubiquitous Computing Technology Adoption: The Case of Radio Frequency Identification (RFID) in the Healthcare Industry."

4. Journal Publications

1. Luo, Xin, Cheon-Pyo Lee, and Minna Mattila, "An Exploratory Study of Mobile Banking Services Resistance," International Journal of Mobile Communications, Forthcoming.
2. Lee, Cheon-Pyo and HK Eun, "Finding the Rolf of Time Lags in Radio Frequency Identification Investment," International Journal of Strategic Information Technology and Applications (IJSITA), Vol. 2, No. 3, pp. 27-35.
3. Lee, Cheon-Pyo, "The Impact of Technology Anxiety on the Use of Mobile Financial Applications," International Journal of Technology Diffusion (IJTD), Vol. 1, No. 4, pp. 1-12.
4. Lee, Cheon-Pyo and J. P. Shim, "An Exploratory Study of Radio Frequency Identification (RFID) Adoption in the Healthcare Industry," European Journal of Information Systems (EJIS). Vol. 16, pp. 712-724.
5. Lee, Cheon-Pyo and J. P. Shim, "An Empirical Study on User Satisfaction with Mobile Business Applications Use and Hedonism," Journal of Information Technology Theory and Application (JITTA).Vol. 8, No. 3, pp. 57-74.

6. Templeton, G.F. and Cheon-Pyo Lee, "Tutorial of an Ontological Support System," Communications of the Association for Information Systems (CAIS). Vol. 17, No. 25, pp. 562-568.
7. Templeton, G.F, Cheon-Pyo Lee, and Charles A. Snyder, "Validation of a Content Analysis System Using an Iterative Prototyping Approach to Action Research," Communications of the Association for Information Systems (CAIS). Vol. 17, No. 24, pp. 539-561.

5. Book Chapters and Book Review

1. Lee, Cheon-Pyo and J. P. Shim, "Ubiquitous Healthcare: RFID in Hospitals," in Handbook of Research on Distributed Medical Informatics and E-health, Athina Lazakidou (Ed.), IGI Global. (ISBN 978-1-60566-002-8. pp. 273-280)
2. Lee, Cheon-Pyo, "Mobile Business Applications" in Encyclopedia of Mobile Computing and Commerce, David Taniar (Ed.), IGI Global. (ISBN 978-1-59904-002-8. pp. 442-445)
3. Lee, Cheon-Pyo, "Organizational Time Culture and Electronic Media" in Information Resource Management: Global Challenges, Wai K. Law (Ed.), Idea Group Publishing. (ISBN 1-59904-102-2. pp. 364-372)
4. Lee, Cheon-Pyo and Merrill Warkentin, "Mobile Banking Systems and Technologies," in Encyclopedia of E-Commerce, E-Government and Mobile Commerce, Mehdi Khosrow-Pour (Ed.), Idea Group Publishing. (ISBN 1-59140-799-0. pp.754-759).
5. Lee, Cheon-Pyo, "Book Review of Information Resource Management Global Challenges," W. Law (ED), Journal of Global Information Technology Management, Vol. 14, No. 1, pp. 88-90.
6. Lee, Cheon-Pyo, Book Review of Public Sector Information in the Digital Age: Between Markets, Public Management and Citizens' Rights, G. Aichholzer and H. Burkert (Eds.), Information Technology & People, Vol. 18, No. 4.

6. Conference Proceedings and Presentations

1. Lee, Cheon-Pyo, "The Impact of Organizational Characteristics and Vendor Activities on the Decision to Integrate Smartphones into Clinical Workflow," Proceedings of 2012 Academic and Business Research Institute International Conference, Orlando, FL, January 2012 (Forthcoming)
2. Lee, Cheon-Pyo and Richard Harvey, "Facilitating the Assessment Process for Accreditation using Qualitative Data Analysis Software," Selected and (will) Present in Best of the Regions Competition at Eastern Council of Business Schools and Programs, Latrobe, PA, November, 2011
3. Lee, Cheon-Pyo, Rebecca Giorcelli, and Mahmood Hossain, "Factors influencing the Virtual Group Participation," Proceedings of 2011 ISOneWorld Conference, Las Vegas, NV, May 2011.
4. Giorcelli, R., Cheon-Pyo Lee, and Majorie Darrah, "Finding an Answer to the Enrollment Crisis in Computing," Proceedings of 2010 Decision Science Institute Conference, San Diego, CA, November 2010
5. Saas, A, Mahmood Hossain, and Cheon-Pyo Lee, "Development of a Software Tool for Healthcare Data Interchange," Proceedings of 1st ACM International Health Informatics Symposium, Arlington, VA, November 2010
6. Lee, Cheon-Pyo, Joe Blankenship, and Rebecca Giorcelli, "The Impact of Social Networking Sites Experiences on Academic Performance in General MIS Classes," Proceedings of 50th Annual International Association for Computer Information Systems International Conference, Las Vegas, NV, October, 2010
7. Giorcelli, R., Joe Blankenship, and Cheon-Pyo Lee, "Revitalizing the Information Systems Curriculum through Multi-disciplinary Experiences; A Focus on Collaboration among Undergraduate Computing Disciplines and Industry," Proceedings of 50th Annual International Association for Computer Information Systems International Conference, Las Vegas, NV, October, 2010

8. Giorcelli, R., Cheon-Pyo Lee, Jeff Tucker, and Clarence Pearson, "Cloud Utilization: Academia and Industry Collaboration in the Cloud," 2010 WV Statewide Technology Conference, Charleston, WV, August 2010.
9. Lee, Cheon-Pyo, "Examining Driving Forces behind Organizational Mobile Information Technology Adoption," Proceedings of 4th American Institute of Higher Education International Conference, Williamsburg, VA, April, 2010
10. Lee, Cheon-Pyo, "Current Status and Issues in Societal Learning and Knowledge Sharing," 2009 Decision Science Institute Conference, New Orleans, LA, November, 2009 (with 4 panelists)

11. Lee, Cheon-Pyo, "An Empirical Study of the Relationship between Organizational Characteristics and Presence of Champions," Proceedings of the 2008 Decision Sciences Institute (DSI) Conference, Baltimore, MD, November 2008.
12. Lee, Cheon-Pyo, Xin Luo, and Merrill Warkentin, "Perceptions of Security and Privacy When Using Mobile Communication Systems," Proceedings of the 2008 Decision Sciences Institute (DSI) Conference, Baltimore, MD, November 2008.
13. Park, Yumi and Cheon-Pyo Lee, "The Impact of RFID-based Traceability System on Perceived Competitive Advantage in the Food Industry," Proceedings of the 2008 Decision Sciences Institute (DSI) Conference, Baltimore, MD, November 2008.
14. Lee, Cheon-Pyo, Minna Mattila, and J.P. Shim" An Exploratory Study of Information Systems Resistance: the Case of Mobile Banking Systems in Korea and Finland," Proceedings of the 2007 Americas Conference on Information Systems (AMCIS), Keystone, Colorado, August 2007.
15. Lee, Cheon-Pyo and J. P. Shim, " The Impact of Individual and Organizational Time Culture on Mobile Communication Systems Use and Performance," Proceedings of the 2006 National Decision Sciences Institute (DSI) Conference, San Antonio, TX, November 2006.

7. Other Professional Development Activities
   1. Program Committee, The 3rd Symposium on Financial Intelligence and Risk Management (FIRM) and the 4th International Workshop of Electronic Payment and Electronic Commerce (EPECC), June 3–5, Chengdu, China
   2. Academic Program External Reviewer, Bachelor of Science in Allied Health Administration, February, 2011
   3. Invited Educational Researcher, Computing Education for the 21st Century Community Meeting by National Science Foundation (NSF), New Orleans, LA, January 2011
   4. Program Committee, Joint Conference on eServices and BI, June 4-6, 2010, Chengdu, China
   5. Manuscript Reviewer, Journal of Global Information Technology Management
   6. Mini-Track Chair, 2009 Americas Conference on Information Systems (AMCIS)
   7. Manuscript Reviewer, European Journal Information Systems (EJIS)
   8. Textbook Reviewer, C. Ou, Computer Applications in Business with Microsoft EXCEL and ACCESS, McGraw-Hill/Irwin, 2008.
   9. Session Chair, 2007 Decision Science Institute (DSI) Annual Meeting
   10. Invited Scholar, 2007 Free Market Forum, Hillsdale college, Michigan

(k) List awards/honors (including invitations to speak in your area of expertise) or special recognition in the last five years.

1. **Invited Lectures**
   1. Lee, Cheon-Pyo, "Future of the Healthcare Industry and Health Informatics," Ansan University, Ansan, South Korea, May, 2011
   2. Lee, Cheon-Pyo, "Business and College Varsity Sports", Hanyang University, Seoul, South Korea, May 2010
   3. Lee, Cheon-Pyo, "Business Intelligence in Sports," Namseoul University, Chun-An, South Korea, May 2010
   4. Lee, Cheon-Pyo, "Future of Organizational Information Technology Adoption Research," University of New Mexico Anderson School of Management Research Seminar, Albuquerque, NM, April 2010
   5. Lee, Cheon-Pyo, "Information Technology in Accounting Firms," The Institute of Management Accounts 27th Annual Seminar, Knoxville, TN, December 2006.

2. **Awards and Honors**

1. Faculty Recognition, Fairmont State University Annual Faculty Awards Ceremony, 2011
2. Faculty Recognition, Fairmont State University Annual Faculty Awards Ceremony , 2010
3. Nominee for Carson-Newman College Teaching Excellence and Leadership Award, 2008
4. Carson-Newman College Outstanding Faculty Research Award, 2008
5. School of Business Outstanding Faculty Research Award, Carson-Newman College, 2007
6. Mississippi State University Doctoral Research Assistant of the Year, 2006
7. Outstanding Doctoral Student Research Award, College of Business Industry, MSU, 2006

(l) Indicate any other activities which have contributed to effective teaching.

•Participated in WVHTC Foundation Technology Exchange Luncheon, February, 2011
•Participated in West Virginia Entrepreneurship Initiative Conference, November, 2010
•Participated in Technology Professional Development Seminar, April 2010
•Participated in Create West Virginia Marion County Summit, March 2010

(m)List professional books/papers published during the last five years

Journal Publications

1. Luo, Xin, Cheon-Pyo Lee, and Minna Mattila, "An Exploratory Study of Mobile Banking Services Resistance," International Journal of Mobile Communications, Forthcoming.
2. Lee, Cheon-Pyo and HK Eun, "Finding the Rolf of Time Lags in Radio Frequency Identification Investment," International Journal of Strategic Information Technology and Applications (IJSITA), Vol. 2, No. 3, pp. 27-35.
3. Lee, Cheon-Pyo, "The Impact of Technology Anxiety on the Use of Mobile Financial Applications," International Journal of Technology Diffusion (IJTD), Vol. 1, No. 4, pp. 1-12.
4. Lee, Cheon-Pyo and J. P. Shim, "An Exploratory Study of Radio Frequency Identification (RFID) Adoption in the Healthcare Industry," European Journal of Information Systems (EJIS). Vol. 16, pp. 712-724.
5. Lee, Cheon-Pyo and J. P. Shim, "An Empirical Study on User Satisfaction with Mobile Business Applications Use and Hedonism," Journal of Information Technology Theory and Application (JITTA).Vol. 8, No. 3, pp. 57-74.
6. Templeton, G.F. and Cheon-Pyo Lee, "Tutorial of an Ontological Support System," Communications of the Association for Information Systems (CAIS). Vol. 17, No. 25, pp. 562-568.
7. Templeton, G.F, Cheon-Pyo Lee, and Charles A. Snyder, "Validation of a Content Analysis System Using an Iterative Prototyping Approach to Action Research," Communications of the Association for Information Systems (CAIS). Vol. 17, No. 24, pp. 539-561.

Book Chapters and Book Review

1. Lee, Cheon-Pyo and J. P. Shim, "Ubiquitous Healthcare: RFID in Hospitals," in Handbook of Research on Distributed Medical Informatics and E-health, Athina Lazakidou (Ed.), IGI Global. (ISBN 978-1-60566-002-8. pp. 273-280)
2. Lee, Cheon-Pyo, "Mobile Business Applications" in Encyclopedia of Mobile Computing and Commerce, David Taniar (Ed.), IGI Global. (ISBN 978-1-59904-002-8. pp. 442-445)

3. Lee, Cheon-Pyo, "Organizational Time Culture and Electronic Media" in Information Resource Management: Global Challenges, Wai K. Law (Ed.), Idea Group Publishing. (ISBN 1-59904-102-2. pp. 364-372)

4. Lee, Cheon-Pyo and Merrill Warkentin, "Mobile Banking Systems and Technologies," in Encyclopedia of E-Commerce, E-Government and Mobile Commerce, Mehdi Khosrow-Pour (Ed.), Idea Group Publishing. (ISBN 1-59140-799-0. pp.754-759).

5. Lee, Cheon-Pyo, "Book Review of Information Resource Management Global Challenges," W. Law (ED), Journal of Global Information Technology Management, Vol. 14, No. 1, pp. 88-90.

6. Lee, Cheon-Pyo, Book Review of Public Sector Information in the Digital Age: Between Markets, Public Management and Citizens' Rights, G. Aichholzer and H. Burkert (Eds.), Information Technology & People, Vol. 18, No. 4.

(n) List externally funded research (grants and contracts) during last five years.

CO-PI, Advancing Computing Curricula and Expanding Learning Experiences through Re-engineered and Accelerated Technology Education (ACCELERATE), National Science Foundation (NSF), $149,915, 2010

APPENDIX XV

Accreditations

Association of Collegiate Business Schools and Programs

Bringing Together Those Dedicated To Teaching Excellence

November 29, 2004

Dr. Daniel Bradley
President
Fairmont State University
1201 Locust Avenue
Fairmont, West Virginia 26554-2470

Dear President Bradley:

Congratulations! The Board of Commissioners of the Baccalaureate/Graduate Degree Commission met on November 4-6, 2004, and granted Full Accreditation, with one note for your business programs.

The note placed on your programs is:

Note on Standard 4.1 Selection and Use of Information and Data. Describe the business school's or program's outcomes assessment program, including the selection, management, and use of fact-based information and data needed to support key processes and improve performance that is consistent with the unit's mission.

In addition, the Board of Commissioners requested the faculty credentials for Barbara Jacowitz who was classified as professionally and should have been minimally qualified. Please send Ms. Jacowitz's credentials for review by the Faculty Credentials Committee by January 20, 2005.

You are encouraged to work with Commissioner Dr. Ron Galloway (phone: 268-467 8404, email: rgalloway@mmm.edu) on the removal of the note.

As a result of this note, you will be required to submit a status report on only the note each year, starting in 8/1/2005, until the note is removed. Your next full Periodic Report will be due in 8/1/2007, and every three years after that. Your ten-year reaffirmation self-study will be due in 2015.

ACBSP encourages you to publicly announce that your business programs are accredited. During the Annual Conference, you will receive an updated ACBSP "Press Kit" which has examples and suggestions for publicizing your accreditation. As you prepare these materials, the following is your official ACBSP statement:

Fairmont State University is nationally accredited by the Association of Collegiate Business Schools and Programs to offer the following business degrees:

- B.S. Degree in Business Administration with concentrations in Accounting, Information Systems, Finance, General Business Management, Marketing, and Sport Management.

I hope that you will plan to attend the accreditation ceremonies to receive recognition on Sunday evening, June 26, 2005, at our Accreditation Banquet. This year the Annual Conference is being held in Washington D.C., at the JW Marriott Pennsylvania Avenue.

You are encouraged to attend along with your Chief Academic Officer and Dean of the College of Business. Many institutions even invite many of the faculty to this prestigious celebration.

There is a breakfast on Sunday morning June 26, 2005, at 8:00 a.m. for those institutions that are receiving accreditation. The purpose of the breakfast is to more personally congratulate the institutional representatives and to outline the procedures that will be followed at the accreditation banquet. At least one institutional representative should attend the breakfast.

In addition to the breakfast, a professional photographer will be available at 5:30 p.m. on Sunday, June 26 to photograph all institutional representatives along with the ACBSP Director of Accreditation, Associate Director, and the Chair of the Baccalaureate/Graduate Board of Commissioners. Appropriate dress for the photo session and banquet is business professional.

If you would like additional information regarding the conference or need additional registration forms, please visit our website at www.acbsp.org. We shall appreciate your completing the form and returning it to us.

Congratulations on maintaining such a high quality business program.

Sincerely,

Steve Parscale
Director of Accreditation
Enclosures

c: Dr. Frederick Fidura, Provost/Vice President, Academic Affairs
Dr. Rebecca Schaupp, Chair, School of Business
Dr. Gary Bennett, Assistant Chair, School of Business
Dr. Richard Symons

APPENDIX XVI

Survey of Employers

FAIRMONT STATE UNIVERSITY

ACBSP ACCREDITED

Information Systems Management Program
Employer Survey

Please provide your candid evaluation of Fairmont State University Information Systems graduates' performance or skill level in each of the following areas. Feel free to provide any additional comments as appropriate.

Skill Level Scale Description
1=Lacking
2=Limited/minimal skill level
3=Adequate/average skill level
4=Above average skill level
5=Exceptional skill
N/A=Not Applicable

Teamwork	**Skill Level**					
1. Makes a positive impact on work team by establishing rapport and credibility.	1	2	3	4	5	N/A
2. Shares information/resources with others.	1	2	3	4	5	N/A
3. Assists/cooperates with co-workers.	1	2	3	4	5	N/A
4. Is-willing-to-put-In extra time and effort.	1	2	3	4	5	N/A
5. Assumes appropriate leadership role(s).	1	2	3	4	5	N/A

Self-Management	**Skill Level**					
1. Produces high-quality, error-free work.	1	2	3	4	5	N/A
2. Adopts new strategies when current approach is not effective.	1	2	3	4	5	N/A
3. Uses good judgment/establishes priorities.	1	2	3	4	5	N/A
4. Makes efficient use of time.	1	2	3	4	5	N/A
5. Demonstrates/practices ethical behavior.	1	2	3	4	5	N/A
6. Arrives on time and maintains agreed hours.	1	2	3	4	5	N/A

Communication Skills	**Skill Level**					
1. Demonstrates oral communication skills required for the job.	1	2	3	4	5	N/A
2. Writes clearly and concisely.	1	2	3	4	5	N/A
3. Is willing to speak up, communicate information, and ask for clarification.	1	2	3	4	5	N/A
4. Listens to feedback and acts to Improve.	1	2	3	4	5	N/A

Problem Solving/Decision Making Skills	Skill Level					
1. Analyzes situations and takes appropriate action.	1	2	3	4	5	N/A
2. Offers creative solutions to problems.	1	2	3	4	5	N/A
3. Collects and analyzes information to do a task and establishes a course of action in a specific period of time.	1	2	3	4	5	N/A
4. Resolves problems in adequate time period	1	2	3	4	5	N/A

Initiative	Skill Level					
1. Seeks opportunities to learn.	1	2	3	4	5	N/A
2. Takes initiative to get a job done even if not specifically told to do so.	1	2	3	4	5	N/A
3. Acts decisively on critical issues.	1	2	3	4	5	N/A
4. Completes work despite obstacles/problems	1	2	3	4	5	N/A
5. Sets and communicates goals. Follows up with results.	1	2	3	4	5	N/A

Technical Skills	Skill Level					
1. Has the technical skills required for position	1	2	3	4	5	N/A
2. Is willing to learn new skills and enhance existing technical skills.	1	2	3	4	5	N/A
3. Uses appropriate technology for tasks.	1	2	3	4	5	N/A
4. Uses technology to perform effectively.	1	2	3	4	5	N/A

Please include additional pages as necessary.

Part II. Please discuss whether your expectations were met or exceeded by FSU Information Systems graduates.

Part III. As an experienced professional, we value your insights into what is required to be successful on the job. What would you recommend for our graduates to better prepare them for the workplace (i.e., courses, activities, skills acquisition, programs)? Please be as specific as possible.

Overall Evaluation - *Please select from the following:*
Given your expectations, the graduates overall performance (in comparison with all other employees performing similar duties) was in:

(1) Top 5%
(2) Top 25%
(3) Top 50%
(4) Lower 50% of all college graduates

Information Systems Management Employer Survey Results

Teamwork	# of responses per rating						
	1	2	3	4	5	N/A	Average Rating
1. Makes a positive impact on work team by establishing rapport and credibility.				4	2		4.33
2. Shares information/resources with others.			2	3	1		3.83
3. Assists/cooperates with co-workers.			1	4	1		4.00
4. Is-willing-to-put-In extra time and effort.			2	2	2		4.00
5. Assumes appropriate leadership role(s).			2	3		1	3.00

Self-Management	1	2	3	4	5	N/A	Average Rating
1. Produces high-quality, error-free work.			1	4	1		4.00
2. Adopts new strategies when current approach is not effective.			1	4	1		4.00
3. Uses good judgment/establishes priorities.			1	4	1		4.00
4. Makes efficient use of time.			4	1	1		3.50
5. Demonstrates/practices ethical behavior.				4	2		4.33
6. Arrives on time and maintains agreed hours.			1	2	3		4.33

Communication Skills	1	2	3	4	5	N/A	Average Rating
1. Demonstrates oral communication skills required for the job.			2	3	1		3.83
2. Writes clearly and concisely.				6			4.00
3. Is willing to speak up, communicate information, and ask for clarification.			2	4			3.67
4. Listens to feedback and acts to Improve.			1	4	1		4.00

Problem Solving	1	2	3	4	5	N/A	Average Rating
1. Analyzes situations and takes appropriate action.			2	3	1		3.83
2. Offers creative solutions to problems.			1	3	1	1	3.33
3. Collects and analyzes information to do a task and establishes a course of action in a specific period of time.			2	4			3.67
4. Resolves problems in adequate time period			2	3	1		3.83

Initiative	1	2	3	4	5	N/A	Average Rating
1. Seeks opportunities to learn.			1	2	3		4.33
2. Takes initiative to get a job done even if not specifically told to do so.			2	4			3.67
3. Acts decisively on critical issues.			3	3			3.50
4. Completes work despite obstacles/problems			2	4			3.67
5. Sets and communicates goals. Follows up with results.			3	2		1	2.83

Technical Skills	1	2	3	4	5	N/A	Average Rating
1. Has the technical skills required for position			2	1	3		4.17
2. Is willing to learn new skills and enhance existing technical skills.				2	4		4.67
3. Uses appropriate technology for tasks.				3	3		4.50
4. Uses technology to perform effectively.				3	3		4.50

Overall Rating of ISM Graduates as Compared to Others

Top 5%	2
Top 25%	3
Top 50%	1
Lower 50%	

Information Systems Management Program
Summary of Employer Survey Responses - Narratives

Part II. Please discuss whether your expectations were met or exceeded by FSU Information Systems graduates.

1. Overall, compared to entry-level graduates from other institutions I felt our expectations were met with the FSU IS students. First and foremost in this field is the willingness to learn. Technology changes fast and they have to come in and in most cases learn new technologies quickly. Also, we work in a very controlled data center which forces the students to learn how to follow correct procedures and policies.
2. In terms of current technical skill as a beginning developer, my expectations were met and sometimes exceeded. Candidate shows technical curiosity and is eager to learn. Of course, as with any graduate new to the industry, there are growing pains in terms of what is expected in a technical position and adapting to any particular work environment, but I am pleased with the result overall.
3. **Expectations were met, and usually exceeded. The graduate had excellent communication skills and took the work seriously.**
4. Steve Cook exceeded my expectations on the technical side because of his strong technical skills. He was okay in non-technical areas, i.e., people skills and attitude towards the job requirements.
5. My expectations were met and exceeded. Mr. Hesson was a very pleasant person to work with. He has a great personality. Jon was eager to learn and provided exceptional quality of work.
6. My expectations were met. Miss Setcavage did what was asked of her. Her skillsets were lacking in order to do the job well. Her job was to develop and maintain various spreadsheets.

Part III. As an experienced professional, we value your insights into what is required to be successful on the job. What would you recommend for our graduates to better prepare them for the workplace (i.e., courses, activities, skills acquisition, programs)? Please be as specific as possible.

1.

- Better understanding of labor markets and salaries. Often they have higher expectations of salary.
- More hands-on projects and exercises to help employers gauge their knowledge.
- Better overall communication skills – Both oral and written.
- Better understanding of requirements for jobs that require security clearances and the time it takes to acquire a clearance.
- They need help in conveying their skills on their resumes.

2.

As an experienced professional, we value your insights into what is required to be successful on the job. What would you recommend for our graduates to better prepare them for the workplace (i.e., courses, activities, skills acquisition, programs)? Please be as specific as possible.
Though I should be more familiar with the IS degree here at FSU, I unfortunately am not, so please take my comments with a grain of salt as they may be covered currently in the program. I think encouraging students to participate in extended internships would be great as a tool for our students to transition to jobs in the work world, allowing students to demonstrate that they've worked in a professional IT environment beyond the walls of a classroom or lab. It also allows students to see the differences between theory and lab projects, and what is expected of professional-level development and work.

Additionally, it might be a good idea to consider different "tracks" through the program; again, my

ignorance of the existing program invades. However, not all graduates will become developers, or will want to, though development is part and parcel of most IT jobs at some level or another, even if it involves just basic scripting of routine jobs. A systems administration track, as well as a business programming track, might be two areas of practical outcome. My educational background is from a school that used to concentrate on the latter scenario (Bluefield State), but my innate interest in CS drove me back into purer IT interests when considering what graduate-level work I wanted to pursue (MS CS at Hood College). Though the grad work gave me a better technical understanding of some technologies (which I enjoy), it's the business and practical aspects of my undergrad work that made me employable in the meantime, and the combination of experience and grad work has given me the skill to successfully manage and train a technical team.

Finally, being a business-oriented technical program, I'm unsure what percentage of graduated go on to pursue a graduate degree, but it should be something that we encourage in our graduates. Though difficult, I think that

3.
I would recommend that students are required to demonstrate communication skills, specifically being able to communicate concisely in a face-to-face situation.

4.
Many employee qualities we value derive from a person's upbringing more so than their educational experience. Beyond FSU providing a good technical foundation, any team-oriented experiences could be useful because most of our work is done in teams.

5. Jon seemed to understand what to do, but he lacked the hands-on experience. Some of Jon's tasks were to update the website, created employee ID's, create route maps, create emergency floor plans and Data How Diagrams. These tasks were in addition to him creating a database for us. Business is not just working with data or programs, it also includes presentation. As a suggestion, I would implement some web-design, Photoshop, and probably some e-commerce.

6.
Serena was able to do the work asked of her but was not able to troubleshoot for us. We have several spreadsheets where data is populated to different forms. She was not able to figure out the formulas for that. Overall, we were very satisfied with her work. As for a class, I would have the accounting class or Excel class have end-of-year accountability built in the lesson plans or projects (Financial Sheets).

APPENDIX XVII

External Review

TO: Dr. Giorcelli
FROM: Jeff Tucker
DATE: 1-30-2012
SUBJECT: FSU ISM External Review

External Review Overview

The following information is in reference to a request to perform an external review of the Fairmont State University Information Systems Management (ISM) Program. The following documents / resources were used during this review:

- Fairmont State University Course Catalog 2011-2012
- Information Systems Management Model Schedule
- Information Systems Management Minor Curriculum
- Information Systems Management Program Metrics
- Fairmont State University Website

Over the past 5 years, IMTS has worked with the ISM program in various capacities including hiring graduates of the ISM program, working on research projects with ISM students, working on class projects with ISM students, providing resume reviews of ISM students and interfacing with ISM faculty members.

External Review – Course Catalog – ISM Minor – ISM Curriculum

Upon review of the Fairmont State Course Catalog it appeared that there was adequate information presented in regards to the program and the required courses. One improvement was noted in the fact that the ISM minor was now broken down into tracks, which allows a student an opportunity to select a defined track and complete appropriate courses relating to that track. This appears to provide a degree of focus to the minor and also helps employers understand the focus of the student while completing courses within the ISM program. One question that this reviewer had was "Is there a similar type discussion held with the ISM majors regarding a specific focus to the courses completed for the major".

It appears that the ISM program has identified a broad set of courses that allows the instructors the opportunity to not only focus on the fundamentals of Information Systems but also the ability to bring new technologies and ideas to the classroom that are current within the field of information technology.

External Review – Fairmont State University Website

In order to get a better idea as to what perspective students of the ISM program might find on the FSU website, a review of the ISM specific pages was completed during this review. The basic information presented was found upon the website but some of the information regarding type of jobs and careers students might expect seems to be limited and over-reaching for an ISM graduate. For example, one of the jobs listed on the website is CIO. Even with an ISM degree, most graduates will not fill this job upon graduation. It will take a degree and a number of years of experience for them to have an opportunity to become a CIO in most organizations. Therefore, the information might be presented in a way that allows students to see a range of

positions that they might be suited for upon graduation and then a career path that might ultimately end up as a CIO within an organization. It is the feeling of this reviewer that often students are not aware of the wide range of positions that can be filled by a graduate of the ISM program. With the ISM minor being broken down into tracks it would be nice to see the information on the web site match the same structure. Therefore, look at presenting opportunities to students in a number of different professional disciplines that match the tracks identified within the ISM program. Also, possibly look into identifying more of a career path discussion on the website so that if someone strives to become a CIO one day they can ultimately see the education and path they need to follow in order to get them in position to someday fill those Senior level positions within an organization.

There is no mention of the type of projects that a student might work on during their ISM program. I have been part of a number of student and class projects that are very interesting and should be highlighted on the ISM portion of the FSU website. These projects showcase real-world hands-on opportunities where the students were able to work closely with industry in order to perform work within internship programs, student research projects, and independent study. This is the type of information which helps in the recruitment of students and also allows current students an opportunity to showcase their work and research. Another opportunity might be to mine through the FSU alumni database and look for alumni that are currently working in the information system field and possibly highlight them somewhere within the ISM website. This instantly brings a real-world flavor to the program and allows perspective students to see how the program has helped these individuals

External Review – ISM Model Schedule

Upon review of the model schedule provided as part of this review, it appears that adequate information is provided to the student in order to show a typical schedule and what to expect upon entering the ISM program. However, this reviewer wonders how the typical student feels about this schedule. If I am really interested in Information Systems type work, it appears that I am almost into my Sophomore/Junior year of study before I really get into the specific ISM courses. If you compare this to a Computer Science model schedule, the student is programming much earlier in the model schedule and helps keep the interest level of the student as they complete the required coursework for their Bachelor's degree. This might be something that the ISM faculty might want to look at regarding how many students enter the program as freshman but drop out of the program before their Junior year of study. If the model schedule does not afford the opportunity for the student to be introduced to more ISM related topics than the ISM program might want to look at ways the students can get involved early in their academic career to keep their interest level high. Possibly, getting to join ISM related student programs, attend guest lectures from speakers within the field of Information Systems, or host more student related events like programming contests, cloud computing seminars, or other industry specific events to keep the students active and interested within the field of Information Systems. One note to add to this discussion would be that there is no mention to how the model schedule would be adjusted if students need to complete pre-requisite courses in order to meet college entrance requirements for areas like math, English, or science. Does the inclusion of these courses push the ISM courses out further into the future? So instead of starting to pick up ISM courses in my 2nd year of study does this push things into my 3rd year of study? Also, how does the Math 1112 requirement impact the completion of the program for students entering as a freshman?

External Review – Graduates and Graduate Resumes

As an active employer of Information Systems graduates and specifically Fairmont State University graduates, this section covers some of the observations made by Human Resource departments and technical task leads responsible for interviewing. The first topic identified in this review of the graduates starts with resumes and the ability for students to convey the activities of the ISM program on their resume. After reviewing numerous Fairmont State University ISM resumes, the major overall weakness has to be presenting the ISM information correctly on the resume. It is often very difficult for HR or technical task leads to understand the skills and abilities of the students that have completed the ISM program. Often the students have no idea as to what positions they are applying for or no idea as to the type of positions they should be looking at filling. One major suggestion would be for the ISM program to help students correctly identify information on their resumes and an ability to explain the ISM program to potential employers. The ISM program might also want to work closely with employers to understand the types of interview questions that are typically asked when interviewing ISM graduates. During this discussion with employers the ISM program might also be able to identify the different types of jobs being filled by ISM graduates.

In regards to the graduates, they often seem to have a limited view of the positions they can fill and often are not aware of the entry type positions that they would be able to fill upon graduation. One misconception that has been noted by our HR department is that the graduates have an inflated view of salary data in regards to where they are interviewing. In some cases students might be interviewing for a position that starts at 40K a year and they think they should be making 60K per year. Again, this seems to go back to not understanding the field that they are entering. Possibly, a regionalized salary survey by actual employers would help instead of using salary survey data provided by organizations that do not factor in regional influences or cost of living by geographic area would help the students have a better understanding of the field.

External Review – ISM Program Metrics

After reviewing the program metrics provided as part of this review, it appears that the ISM program is getting a number of students to enroll in the program but it is not reflected in the graduation numbers. It would at first glance appear that the program is not sustaining the students throughout the course of study. Now this one data point can have a number of issues associated with it. Given that graduation rates for Bachelor's degree programs nationally are well under 50% and the fact that students are taking longer to complete a Bachelor's degree might be impacting the stated graduation statistics. However, there does appear to be a significant reduction in students that start the program and students that finish. As noted previously, an interesting data point might be to look at the point the students are leaving the program in comparison to the model schedule. Again, this was just an initial observation after reviewing the ISM metrics and it should be noted this reviewer did not dig deeper into the program retention numbers.

External Review – Overall Observations

It appears that the FSU ISM program has provided a program of study that is comparable to other programs within the field of Information Systems. The program has obtained faculty that

appear to meet the qualifications of their positions and that also are dedicated to bringing real-world examples to the classroom. The ISM pages on the Fairmont State Website could use some updates to include directly relevant information that perspective ISM students might be interested in and help with recruitment. The ISM program might also want to include information on the website that would not only help with recruitment but help with retention of students as well. As an external reviewer and employer of future ISM graduates an overall comment might be to look for ways to provide a refined focus to the program. As noted previously, graduates seem to have broad information systems concepts and skills but lack the ability to see where these skills can fit within an organization. The ISM program really needs to help create a process that will ultimately help students correctly identify the correct information on resumes and also how to highlight and showcase ISM specific work completed during their field of study. As we continue to move into fields where information is critical to the decisions being made by businesses, organizations, and government agencies, we need to make sure that the ISM curriculum is producing the types of students needed by industry. Mobile technologies and the ability to access data in almost real-time have changed the way organizations conduct business and the ISM program at FSU is well positioned to take advantage of this information-driven world.

External Review – Additional Suggestions

Additional advice that I could offer as an external reviewer to the ISM program would be:

1. Let the employers and the world know about your program. You are not only marketing to the students but also the employers of your perspective graduates.
2. Showcase your success. There are a number of great stories that can be told by students from within the ISM program. Find a way to highlight and showcases these success stories.
3. Tap into the FSU alumni program and see if you can identify a few graduates that can be highlighted by the ISM program.
4. Get the students involved early into the ISM program to help retention of students.
5. Work with the local community in order to get relevant real-world feedback of the types of positions that ISM graduates are filling.
6. Utilize Web 2.0 technologies and social media to keep students informed and also allow employers and alumni to know what is going on within the program.
7. Look for ways to get guest lecturers on campus in order to keep students engaged in the program.
8. Help students showcase the ISM program and success stories on their resumes. Your graduates can be some of your best salespeople for your program.

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February 13, 2012

Dr. Rebecca Giorcelli
Information Systems Management Coordinator
Fairmont State University
1201 Locust Avenue
Fairmont, WV 26554

Becky,

Here are my thoughts/comments/high-level feedback after reviewing the program information you provided.

Overall, I think the Information Systems Management (ISM) major curriculum and course content are solid. ISM is a tricky field of study, needing in some ways to cover a much broader scope of information technology career outcomes, than a more straightforward Computer Science major.

Aspects that I liked:

- Within the FBI, immense effort is being put into systems analysis and requirements management, data quality/analytics and business intelligence (including workflow), and common operating environments and enterprise architecture integration. Having reviewed the content of courses listed for the ISM major, these areas seem to be well represented.
- Within the "Placement" section of the Program Review, it reads, "In addition, the Information Systems Management program seeks to develop relationships with local businesses, especially regarding internship placements that often lead to employment opportunities for our graduates." This is spot-on, and increasingly important and necessary for IT-related college students. I would be very interested to know what mechanisms and activities you currently have in place to encourage and maintain these industry relationships. At SRA Platinum Solutions, our own interns are the most preferred candidates to hire for entry-level positions.
- While I'm not sure what the overall target is for percentage of the enrollment taught by adjunct faculty, I would like to encourage you to continue seeking industry specialists for teaching within your program. Adjunct instructors, especially when active in private industry, will naturally be more current in the application of the course topics. In addition, they are good points of contact for possible internships and post-graduation employment opportunities that are in front of the students multiple times each week. This kind of interaction helps the students stay in tune with real projects and technologies in the region, and offers the university a chance to establish closer working relationships with key employers.

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- 'Emerging' areas in information systems and technology are referenced in several places within the ISM core course descriptions (e.g. BISM 1200, BISM 4400). Topical areas specified include telecommunications, bioinformatics, grid computing, and data visualization. I would encourage you to include biometrics as a commonly introduced field of study and practice. The Biometrics Center of Excellence (BCOE) is the FBI CJIS Division's program for exploring and advancing the use of new and enhanced biometric technologies and capabilities. It is anticipated that in 2013/2014 the BCOE will move into the new Biometric Technology Center (BTC) being built on the CJIS Division's campus in Clarksburg, collocating with the Department of Defense's (DoD) Biometrics Identity Management Agency (BIMA) and possibly other partners. Having the BIMA and the BCOE in one building will further facilitate joint biometric research and development efforts and will provide expanded opportunities for strengthening investigations, enhancing national security, and expanding capabilities.
- One format I'd like to suggest for BISM 4400 is a 'guest lecture series' by industry representatives. Instead of an entire course on one topic (which would always still be a possibility), the university could arrange for different technology and management specialists from local/regional companies to serve as lecturers each week or two weeks at a time. Each representative could cover a 'real-world' application of a topic from one of the other courses, or simply an interesting example from a project or new business development happening at the time. If this course is not the appropriate vehicle for this kind of idea, then perhaps another course could be created. The greater point is to find more ways to involve key members of the IT community in reach students and building a relationship with the university.

Aspects where I have questions:

- 'Free Electives' make up 21 hours of the ISM program. From what pool do these come? What are common selections? What is generally encouraged by the university and ISM department?
- What kind of market survey or analysis has resulted in Visual Basic being the implementation language emphasized within the program (e.g. BISM 3000 and 3800), as opposed to C#, Java, etc.? Students
- What kind of commercial packages are used across the whole slate of classes (e.g. under BISM 4300, has Oracle BI or some other suite been considered)?
- I have a few other lower-level questions like these with regard to some course content, but they are really more intended to be handled in a private or information manner, not critical to the overall layout of the program.

One disclaimer: I did not evaluate the ISM program minor. In full disclosure, it is not something that registers at all when our organization is evaluating candidates.