

SOUTHEAST MISSOURI STATE UNIVERSITY

DEPARTMENT OF Computer Science

COURSE NO. IS175

TITLE OF COURSE Information Systems I

REVISION 01/2002

I. CATALOG DESCRIPTION AND CREDIT HOURS OF COURSE:

IS175. INFORMATION SYSTEMS I. Concepts and applications of information systems for users of IS and for prospective developers of IS. Topics include concepts of IS, concepts and applications of spreadsheets, and an introduction to the Internet and to markup language. Two hours lecture, two hours lab. Prerequisite(s): MA134 with minimum grade of "C". (3)

II. PREREQUISITE(S): MA134 College Algebra (or high school equivalent) with a minimum grade of "C"

III. PURPOSE OR OBJECTIVE OF THE COURSE:

Students will be able to:

- A. discuss information systems concepts.
- B. apply concepts pertaining to organization, analysis, and presentation of information, using system tools (e.g. spreadsheet).
- C. discuss fundamental network and telecommunications concepts and apply concepts pertaining to information dissemination, using network facilities.

IV. EXPECTATIONS OF STUDENTS:

- A. Normal expectations of students including regular class attendance, reading assigned material, completion of all assignments, and taking all quizzes and examinations. A student should expect to spend at least two hours of time outside of class for each hour in class.
- B. Regular access to computer resources for out-of-class lab assignments.

V. COURSE CONTENT OR OUTLINE

Because of the nature of the course material, the main topics will be interleaved. The following outline gives the approximate number of class and lab periods devoted to the main categories and topics of the course.

<b>Lecture</b>		<b>Lab</b>	
<u>Concepts</u>	<u>50 Min. Class Per.</u>	<u>Lab Topics</u>	<u>100 Min. Lab Per.</u>
<b>A. Information systems concepts</b>	7	<b>A. Introduction to labs</b>	0.5
1. Systems concepts			
2. Systems development			
3. Use of information technology in organizations			
4. Characteristics of IS professionals and IS career paths			
<b>B. Applications, using a spreadsheet.</b>	11	<b>B. Case Studies, using a spreadsheet</b>	7.5
1. Introduction to spreadsheets and potential applications		1. Introduction to using spreadsheets.	
2. Computation and data analysis		2. Formulas; statistical and financial functions	
3. Decision planning.		3. Scenarios and goal seeking	
4. Information presentation		4. Graphs and charts	
5. Organization and management of information		5. Database features	
6. Programming concepts: control structures.		6. Creation and revision of Macros (e.g. using VBA)	
7. Report preparation using integrated applications.		7. Object linking and embedding; hyperlinks	
<b>C. Information dissemination using network facilities</b>	10	<b>C. Web page development case studies</b>	6
1. Introduction to the Internet; web browsers, and potential applications of web pages.		1. Introduction to a markup language.	
2. Static information		2. Web page development using a markup language.	
3. Dynamic information		3. Client-server applications, using a scripting language.	
<b>D. Written exams covering concepts.</b>	2	<b>D. Hands-on exams covering applications and laboratory skills.</b>	1
Totals:	30		15

VI. TEXTBOOK(S) AND OTHER REQUIRED MATERIALS OR EQUIPMENT

A. Class textbooks:

1. <contemporary introductory information systems textbook to be selected>
2. Exploring Microsoft Excel 2000 with VBA, by Robert T. Grauer and Maryann Barber, Prentice Hall, 2001.
2. Creating Web Pages with HTML 2nd ed. Comprehensive, by Patrick Carey, Course Technology, 2001.

B. Other reference books (non-exclusive list):

1. Running Microsoft Excel 2000, by Craig Stinson, Microsoft Press, 1997.
2. Excel 2000 Bible, by John Walkenbach, IDG, 2000.
3. New Perspectives on Creating Web Pages with HTML by Patrick Carey, Course Technology, 1999
4. HTML User's Interactive Workbook by Alayna Cohn and John Porter, Prentice Hall, 2000

C. Web sites:

1. [www.prenhall.com/grauer/index.html](http://www.prenhall.com/grauer/index.html)  
-- The web site accompanying the Grauer/Barber text, with additional material and additional links.
2. [www.mous.net/tests/excel2000\\_core.htm](http://www.mous.net/tests/excel2000_core.htm)  
-- The list of skills and typical applications topics for MS-Office Excel 2000 User Certification Exam (Proficient Use Level); the lab experience coincides closely with this material.

VII. BASIS OF STUDENT EVALUATION (percentages are approximate and may vary):

- A. Laboratory exercises and projects. (20%)
- B. Homework exercises and/or quizzes, based on the textbooks and lectures. (10%)
- C. Reading/writing assignments from the Library and/or the Web. (10%)
- D. Tests. (40%)

E. Final examination. (20 %)