Maryland in Europe

IFSM 461 Systems Analysis and Design	INSS 540 Information Management Analysis and Design
University of Maryland University College	Graduate Programs -- Bowie State University

2002-2003/Term 4
Education Center
Alconbury

29/30 March, 12/13 April, 3/4 & 17 May, 2003
Saturdays & Sundays
9:00 to 17:00
(Please note: 7 days, 7 hours/day)

Description **Objectives** **Text** **Grading** **Schedule**

Instructor:	Grant Wiswell
Mailing Address:	UMUC, Unit 29216, APO AE 09102
Email Address:	gwiswell@faculty.ed.umuc.edu
Web Site:	http://faculty.ed.umuc.edu/~gwiswell/
Consultation:	Before and after classes, and by appointment. (Further availabilities will be discussed during first weekend of class.)

Credit: 3 semester hours of credit

Prerequisites:

IFSM 461 Prerequisite: IFSM 300. Student may earn credit for only one of the following courses: IFSM 436, IFSM 460, or IFSM 461.

INSS 540 Prerequisites: Either INSS 510, INSS 520, INSS 530, or permission of the instructor. Students may not receive credit for both INSS 540 and INSS 610.

Course Descriptions

IFSM 461 Course Description: A study of the methods used in analyzing needs for information and in specifying requirements for an application system. Topics include the concept of the system life cycle, the iterative nature of the processes of analysis and design, and the methodology for developing a logical specification for a system.

INSS 540 Course Description: Provides an in-depth look at all phases of information systems development. Requirements acquisition methodologies are reviewed and evaluated with respect to different application areas. Logical design is reviewed and implementation issues are addressed. Data-centered as well as process-centered approaches to system design are reviewed. Particular design methodologies including structured design and object-oriented design are discussed. Life cycle as well as heuristic approaches to system development are examined and discussed. Organizational and behavioral issues with respect to information system development are examined. An analysis and design project will be required.

Course Goals/Objectives

At the conclusion of this course the student will understand and be able to explain:

1. The reasons for formal systems analysis and design
2. The processes and phases of IS development
3. Methods for requirements acquisition
4. The importance of structured logical analysis
5. The difference between data-centered and process-centered methodologies
6. Conventional and object-oriented design methodologies
7. The systems development life cycle
8. Systems prototyping and Rapid Application Development (RAD)
9. Non-traditional systems development
10. Systems implementation, operations and maintenance
11. Systems security and controls
12. Ethical, organizational and behavioral issues

Textbooks

Satzinger, J., Jackson, R., and Burd, S. (2002). *Systems Analysis and Design in a Changing World (2nd ed.).*

Boston: Course Technology. `ISBN 0-619-06309-2`

In addition, a CASE tool will be utilized.

Grading Information

Grades for IFSM 461 will be assigned as follows:	
A	90 to 100
B	80 to 89
C	70 to 79
D	60 to 69
F(a)	below 60

Course Requirements for IFSM 461	
Homework Assignments	20%
Term Project	30
Quiz	5
Midterm Examination	20
Final Examination	25

Grades for INSS 540 will be assigned as follows:	
A	90 to 100
B	80 to 89
C	70 to 79
F(a)	below 70

Course Requirements for INSS 540	
Homework Assignments	20%
Term Project	30
Quiz	5
Midterm Examination	20
Final Examination	25

Projects

There will be a term project where students can acquire the experience of using software engineering methods to organize information for problem-solving and to create useable designs. Because teamwork is a standard part of the professional software environment, at least some part of the projects will be conducted in teams. During the first weekend of the course, guidelines for project content will be

handed out, and we will decide how to organize the projects in a way which allows for constructive cooperation and at the same time encourages and recognizes individual student work. INSS 540 students will be expected to make key contributions to the quality of their team projects.

Course Standards

Exams will cover both text and lectures and will consist mainly of definitions, short answers and essay questions. For the INSS 540 students, the exams will include an essay question of the type found in the MIS Graduate program comprehensive exams.

Homework assignments will give students experience in using methods for modeling and designing systems. For INSS 540, there will also be a small research assignment, in which the graduate students look into a particular area of systems development and present their findings to the rest of the class.

Class attendance is expected. Students are responsible for all material covered during lectures and discussions, as well as assigned textbook readings. Class participation is encouraged, and that includes asking questions. In order to have lively and effective class discussions, students should read the assigned material and think about it before class.

Students will be graded primarily on their written work. Good presentation skills are also important, however, and will help contribute to the grade. In both written assignments and verbal contributions, students are encouraged to follow the maxim, "*Content before form*".

Standards for Written Work

Black ink on white A4 or 8.5x11 paper, in a standard typewriter face such as Courier, or 11- or 12-point Times New Roman. Line spacing double-spaced or 1.5.

No color or graphics, except for (1) charts generated by the student to convey substantive information; or (2) as an artifact of the subject being studied, in support of a point discovered or being argued by the student.

Where there has been research, be sure to acknowledge your sources, using the APA style for footnotes and bibliographical references. See -- www.umuc.edu/library/guides/apa.html

Policies

On such matters as exceptional grades, academic dishonesty, classroom conduct and attendance, the policies of the current Undergraduate and Graduate (as appropriate) Catalogs of Maryland in Europe will apply to this course.

Instructor

Mr. Wiswell received a BA in History from Stanford University and an MA in History from the University of London. He worked in the computer industry for over twenty-five years in marketing, technical and project management positions. As project manager and systems analyst, he was responsible for developing and installing systems in large organizations such as Ford Motor Company, Air Force Logistics Command, Wells Fargo Bank, McKesson, and Pacific Bell.

Tentative Course Schedule

Weekend	Topics	Activities	Chapters
1			
Saturday 29 March	Course Introduction The Systems Analyst's World The Systems Analyst as Project Manager	Course and class introductions	1, 2, Appendix A
Sunday 30 March	Methodologies Gathering Requirements Information Modeling System Requirements Cost-Benefit Analysis	Project teams selected Assign Homework 1	3, 4, 5 Appendix B
2			
Saturday 12 April	The Traditional (Structured) Approach The Object-Oriented Approach	Brief review *Quiz (Saturday morning)* Project topics selected	6, 7
Sunday 13 April	Environments, Alternatives, Decisions Design Preliminaries	Homework 1 due Assign Homework 2	8, 9 Appendix C
3			
Saturday 3 May	Database Design Designing I/O & Controls Human-Computer Interaction	Brief review *Midterm Exam (Saturday morning)* Projects: all deliverable elements identified	10, 11, 12
Sunday 4 May	Development: RAD, Components, Packages The Operational System	Homework 2 due Projects: drafts due	13, 14, 15
4			
Saturday 17 May		Project Presentations Projects Due Course review *Final Exam*	

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