

Maryland in Europe Graduate Programs
Bowie State University

Information Management Analysis and Design INSS 540

29/30 March, 12/13 April, 3/4 and 17 May
Wiesbaden Education Center
0900 – 1700

Instructor: Ron Dickinson, Ph.D.
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Course Description: *Prerequisite: Either INSS 510, INSS 520, INSS 530, or permission of the instructor.* 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. *Students may not receive credit for both INSS 540 and INSS 610.*

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
9. Non-traditional systems development
10. Systems implementation, operations and maintenance
11. Systems security and controls
12. Ethical, organizational and behavioral issues

Text/Course Materials: Satzinger, J., Jackson, R., and Burd, S. (2002). *Systems Analysis and Design in a Changing World* (2nd ed.). Boston: Course Technology. In addition, a case tool will be utilized.

Grading Information: Grades for this course will be assigned as follows:

A	90 - 100%+	C	70 – 79%
B	80 – 89%	F	Below 70% F(a) or regular non-attendance F(n)

Course Requirements:

Group Project Report	25%
Group Presentation (50% instructor, 50% peer evaluations)	15%
Article Reviews & Case Studies (3)	15%
Midterm:	20%
Comprehensive Final:	25%

Course Assignments

The major assignment for this course is a group project. You will work with others to apply the course's techniques to a limited-in-scope but substantive design problem as your team's Group Project. The Group Project end product will consist of a comprehensive design document and a Group Presentation. The presentation is at the end of the term, about 20 minutes plus question period of 10 minutes.

The midterm and final exam are short essay type questions over the concepts, terminology and usage of the systems design techniques covered in the text.

There will also be a list of professional articles and case studies from which you may choose three to write an article review or a case analysis (about 500 - 750 words). More details are provided below.

Group Project

This is a team assignment of 3-5 students that will undertake a limited in scope systems design problem. There are some candidate projects with the textbook, and the lecturer will consider proposals by the team so check around for a problem that needs a 'systems solution' that you think might be done in 6 weeks or so. The project is to include requirements investigation, feasibility analysis, design and implementation planning as well as a projected project budget. Your project document will be evaluated as to its completeness, correct use of design methods covered in class and clarity of organization and writing. Your group presentation will be evaluated by the rest of the class, and also by the lecturer (weighted 50/50).

Article Reviews

These assignments are individual assignments where graduate students will pick an article from a state-of-the-art journal (like Communications of the ACM) and write a summary of the article along with a critical analysis of its merits, limitations and its applicability to systems design practices (1.5 to 3 double-spaced pages in length).

Midterm and Final Exams

There will be a list of about 10-15 possible questions for each test distributed before exam week. On the day of the exam the instructor will select from the list which

questions you are to write on for the exam itself. There will no more than 4 selected for the Midterm and the Final exam.

Course Schedule:

Module	Topics	Assigned readings/ assignments due
1 Week 1	Overview of Course, Review of Syllabus. Discussion of Text, Assignments and Schedule: Choosing Project Teams and Project Ideas The Modern Systems Analyst Overview of the profession	Reading: Chapter 1
2 Week 1	The Modern Systems Analyst The IT Project and the Systems Analyst Team Meeting: Choice of Team Project	Reading: Chapter 2
3 Week 1	The Modern Systems Analyst The Practice of Systems Development	Reading: Chapter 3
4 Week 1	Systems Analysis Tools: System Requirements: Their Analysis and Organization	Reading: Chapter 4
5 Week 2	Systems Analysis Tools: Requirements Modeling Techniques	Reading: Chapter 5
6 Week 2	Systems Analysis Tools: The Classic Techniques for Establishing Requirements	Reading: Chapter 6
7 Week 2	Systems Analysis Tools: New Approaches to Requirements: Object-Oriented Approach to Requirements	Reading: Chapter 7
8 Week 2	Systems Analysis Tools: The System Environment, Critical Decisions in Systems Design MIDTERM on Chapters 1-8 Sunday afternoon	Reading: Chapter 8
9 Week 3	Systems Design Tasks Getting Into Design Mode - I: Input-Output Design System Flow Charts Object-Oriented Approaches	Reading: Chapter 9
10 Week 3	Systems Design Tasks Getting Into Design Mode - II: Designing Databases ER Diagrams Business Process Approach	Reading: Chapter 10

11 Week 3	Systems Design Tasks Getting Into Design Mode - III Designing System Inputs, Outputs, and Controls	Reading: Chapter 11
12 Week 3	Systems Design Tasks User Interface Design	Reading: Chapter 12
13 Week 3	Implementation and Support: Rapid Application Development Approaches	Reading: Chapter 13 Team Presentations Begin
14 Week 3	Implementation and Support:	Reading: Chapter 15
15 Week 4	Team Presentations Packaged Software and Enterprise Resource Planning (ERP) FINAL EXAM SATURDAY AFTERNOON	Reading: Chapter 14 Team Project Reports must be completed and turned in Team Presentations

Academic Policies: Please refer to the UMUC Maryland in Europe Graduate Catalog, available online at http://www.ed.umuc.edu/visit/pubs/catalog/grad_02-03.pdf or from your local Education Center, for information on the following:

Academic Integrity

Course Load

Exception to Policy

Grade Appeal Process

Make-up Examinations

Nondiscrimination

Students with Disabilities

CODE OF CIVILITY

To promote a positive, collegial atmosphere among students, faculty, and staff, Maryland in Europe has developed the following Code of Civility:

Respect

Treat all students, faculty, and staff with respect and in a professional and courteous manner at all times and in all communications, whether in person or in written communication (including e-mail).

Kindness

Refrain from using profanities, insults, or other disparaging remarks.

Truth

Endeavor to cite only the truth and not knowingly misrepresent, mischaracterize, or misquote information received from others.

Responsibility

Take responsibility for our own actions instead of blaming others.

Cooperation

Work together with other students, faculty, and staff in a spirit of cooperation toward our common goals of seeking and providing quality education.

Privacy

Strive to uphold the right to privacy and not talk about others.

Nondiscrimination

Respect the differences in people and their ideas and opinions and reject bigotry.

About Your Instructor: Dr. Dickinson first began programming computers in 1964 with the first IBM System/360 mainframes. He was an IBM Systems Engineer for many years and worked with project managers in Fortune 500 corporations and government to apply computer technology to many corporate information systems needs. He also spent several years in IBM HQ developing product and marketing strategies for IBM's networking, office and workstation product divisions. He also holds a M.S. and Ph.D in Marketing and MIS and emphasizes an integrated view of business and technical aspects of systems design and development. Ron also has been an independent consultant to small and medium sized businesses and e-businesses in the Pacific Northwest and an author of commercial software. Ron has also taught graduate and undergraduate courses in marketing, in addition to Visual Basic and Java programming before coming to UMUC.