

Proposed University-wide IT MINOR

MGMT421b – Introduction to Systems Analysis and Design

Course Description: This course covers principles of systems analysis and design. Topics include information systems (IS) development methodologies, IS project planning, process, data and user interface design, use of CASE tools, systems implementation and maintenance issues. Pre-requisite: MGMT 345b and MGMT 360b

The course will provide an understanding and application of information systems (IS) analysis and design processes. Several different methodologies for IS development methodologies will be examined and the use of structured techniques will be stressed. The emphasis of the course will be to develop the requirements specification that provides the necessary base for subsequent systems development. Various technical tools ranging from flow charts and decision tables to integrated CASE tools will be discussed and used by students.

Course Objectives:

After successful completion of this course, students should be able to:

- 1) understand IS development principles and methodologies
- 2) understand how IS project feasibility is assessed and how IS projects are planned
- 3) apply the various techniques for system requirements determination
- 4) apply process and data modeling for simple cases
- 5) design simple databases, interfaces, and related processes & programs
- 6) design and implement simple IS

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Suggested Topics and Duration (Tentative)

Topics	Duration (No. of Weeks)
▪ IS development methodologies; Life cycle phases	1.5
▪ Assessment of IS project feasibility; planning IS project	1.5
▪ Techniques for requirements determination, collection, and organization (interviewing, questionnaires, document analysis, and observation; joint application design, prototyping)	1
▪ Process modeling; Data modeling	3
▪ Designing human interface (Forms; reports; interface and dialog)	2
▪ Designing databases	1.5
▪ Designing program and process	1.5
▪ System implementation (testing, installation, documentation; organizational) issues	1.5
▪ Professional code of ethics	1.0
Total	14.5

Textbooks :

Joseph S. Valacich, Joey F. George, and Jeffrey A. Hoffer, *Essentials of Systems and Design*, Prentice Hall, 2001.

Evaluation :

Examinations	30%
▪ Mid-term : 15%	
▪ Final : 15%	
Assignments	20%
Case studies	10%
Quizzes	15%
Group Project	25%
▪ Report and system specifications : 20%	
▪ Presentation : 5%	