DEREE COLLEGE SYLLABUS FOR: CS 4284 ANALYSIS AND DESIGN OF INFORMATION SYSTEMS

UK LEVEL: 6
UK CREDITS: 15
US CREDITS: 3/0/3

(Spring 2015)

PREREQUISITES:	CS 1070 Introduction to Information Systems CS 2179 Business Information Systems
CATALOG DESCRIPTION:	Concepts for systems analysis and design, methodologies, techniques, and tools. Evaluation of information systems components and their alignment with business requirements. Integration of the structured systems modeling with the object oriented one.
RATIONALE:	Information systems are viewed as a set of layers which incorporate software components (objects) that act on data. In this course students acquire a strong foundation in structured methodologies which guide systems development and also a clear understanding of the concepts, tools and techniques of the object oriented methodologies. This course introduces the concepts, tools and techniques of both paradigms and deepens into systems thinking in general. Also, since systems analysis and design projects are tasks requiring a combination of resources, students are also introduced to project management.
LEARNING OUTCOMES:	As a result of taking this course the student, should be able to: 1. Recognize the systems development cycle and the role of the systems analyst. 2. Evaluate the dimensions of feasibility in information systems 3. Apply the systems analysis tools and techniques to construct models of a business information system.
METHOD OF TEACHING AND LEARNING:	In congruence with the learning and teaching strategy of the College, the following tools/activities are used: • Lectures, class discussions on the requirements and design specifications of small enterprise information systems. • Office hours held by the instructor to provide further assistance to students. • Use of the Blackboard Learning platform to further support communication, by posting lecture notes, assignment instruction, timely announcements, and online submission of assignments.
ASSESSMENT:	**Summative**: Midterm Examination (1-hour, comprehensive): answers to essay questions — **50** Project: functional requirements, application-based solution design. — **50** **Formative:** Practical "diagnostic" exam — **0** In-class, 1-hour, "diagnostic" activity — **0** The formative assessments aim to prepare students for the summative assessments. The midterm examination tests Learning Outcome 1, 2. The project tests Learning Outcomes 1, 3, with emphasis placed on 3. (Guidelines and assessment rubrics are distributed on the first day of classes along with the course outline.)
READING LIST:	• Jeffrey L. Whitten, Lonnie D. Bentley. Systems Analysis & Design Methods. McGraw-Hill, 7th edition, 2007, ISBN:0073052337

RECOMMENDED MATERIAL:	• Hawryszkiewycz, I.T. Introduction to Systems Analysis and Design. Prentice-Hall, latest edition, ISBN: 0 7248 0662 8 • Semprevivo, Ph. Systems Analysis: Definition, Process and Design. Chicago, Ill.: Science Research Ass., A Subsidiary of IBM, latest edition. • Burch, John and Gary Grudnitski. Information Systems. J. Wiley and Sons, latest edition, ISBN 0-471-61293-6. • Wetherbe, J. C. Systems Analysis and Design. West Publishing Company, latest edition. • Donaldson, Sandra Dewitz. Systems Analysis and Design and the Transition to Objects. McGraw-Hill, latest edition, ISBN 0-07-114141-3. • Turban E., Introduction to information systems supporting and transforming business, Hoboken, NJ: Wiley, c2007. • Software & Systems Modeling Journal • Systems Engineering Journal • Journal of Information, Information Technology & Organizations • Journal of Information Technology (Routledge, Ltd.) • MIS Quarterly Journal • Information Today Journal • Systems Analysis Modelling Simulation Journal • Theory of Computing Systems Journal
COMMUNICATION REQUIREMENTS:	Use of Blackboard CMS. Use of word processing and/or presentation graphics software for documentation of assignments
SOFTWARE REQUIREMENTS:	Microsoft Visio (latest version)
WWW RESOURCES:	http://www.jmis.com http://www.lucent.com http://www.cisco.com http://www.ecom.com CS4284 Analysis & Design of Information Systems eLearning Central Course Management System Web resources
INDICATIVE CONTENT:	1. Introduction to Systems 2. Systems Analysis 4. Systems Design 5. Systems Development 6. Systems Implementation