DEREE COLLEGE SYLLABUS FOR: CS 4384 ANALYSIS AND DESIGN OF INFORMATION SYSTEMS

(Updated Spring 2021)

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

PREREQUISITES:	CS 1070 Introduction to Information Systems CS 2179 Business Information Systems CS 3245 Data Management for Business
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 modelling 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. In addition, since systems analysis and design projects are tasks requiring a combination of resources, students are introduced into project management techniques.
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 in accordance with identified requirements of information systems cases. 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**:

First Assessment – Literature Review	**40%**	Project scope, methodologies, best practices
Final Assessment – Research Project	**60%**	Functional requirements (groupwork), application-based solution design proposal (2,500-2,700 words)

Formative:

Multiple reviews on submitted documents drafts both for the Literature Review and Project assessments	**0%**
Team case problem analysis	**0%**

The formative assessment(s) aim to prepare students for the summative ones.

The First Assessment tests Learning Outcomes 1 and 2.

	The Final Assessment tests Learning Outcomes 1 and 3, with emphasis on 3. Students are required to resit failed assessments in this module. (Guidelines and assessment rubrics are distributed on the first day of classes along with the course outline)
INDICATIVE READING:	**REQUIRED READING**: Jeffrey L. Whitten, Lonnie D. Bentley. Systems Analysis & Design Methods. McGraw-Hill, 7th edition, 2007, ISBN:0073052337 **RECOMMENDED READING:** 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.
INDICATIVE MATERIAL: (e.g. audiovisual, digital material, etc.)	**REQUIRED MATERIAL:** N/A **RECOMMENDED MATERIAL**: N/A
COMMUNICATION REQUIREMENTS:	Use of appropriate academic conventions as applicable in oral and written communications.
SOFTWARE REQUIREMENTS:	• MS-Office 365 applications • MS-Visio
WWW RESOURCES:	http://www.cisco.com CS4284 Analysis & Design of Information Systems eLearning Central Course Management System Web resources https://ieeexplore.ieee.org/abstract/document/903160
INDICATIVE CONTENT:	1. Introduction to Systems 2. Systems Analysis 3. Systems Design 4. Systems Development 5. Systems Implementation.