CSC 212

Systems Analysis & Design

Course Outline

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Why this course?

- Computer Science graduates require technical analytical and design skills.

- You will need to move up the corporate ladder – your technical skills are inadequate to do that, you also need Project Management Skills.

- The most successful people in industry are those who have multiple skills (analysis, design, project management).
Learning Objectives

- Demonstrate understanding of the types of business needs that can be addressed using information technology-based solutions.

- Demonstrate ability to Initiate, specify, and prioritize information systems projects and determine various aspects of feasibility of these projects.

- Be able to effectively collect and analyse data using appropriate techniques and instruments.

- Apply specific modeling methodology to analyse, design and specify requirements for a business situation using a formal technique.
Learning Objectives

- Exhibit competence in applying contemporary analysis and design techniques in business process improvement.
- Design high-level logical system characteristics.
- Articulate and compare various systems acquisition alternatives.
Course outline

1. Introduction to Systems Analysis and Design Environment
   - What types of IT/IS Projects and role in organizations?
   - Who are Stakeholders in IT/IS Projects and their roles?
   - Why is Systems Analysis and Design important?
   - What do Systems Analysts do?
   - What Methodologies, Techniques and Tools (Approaches to Systems Development)
2. Managing IS Projects
   - Conceptualization of IS Projects
   - Feasibility of IS Projects
   - IS Project Management

3. Analyzing Business Requirements
   - Information Gathering
   - Methods for Information Gathering
   - Systems Requirements
   - Document Analysis
   - Communicating Requirements
Course outline

4. Modelling Requirements
   - Why Models?
   - Types of Models
   - Approaches to Models is SA
     (Traditional, OO)

5. Evaluation of Alternatives
   - Requirements Scope
   - Deployment Environment
   - Implementation Alternatives
Course outline

6. Systems Design
   - Design Elements
   - Design Activities
   - Approaches to Models is SD (Traditional, OO)
   - Designing Databases
   - Designing User Interface
   - System Interfaces, Controls and Security

7. Organizational Implementation of new IS
   - Successful Implementation
   - Managing Expectations, change, suppliers
   - Leadership
References


