

Common Course Outline
CSIT 241
Applied Systems Analysis and Design
4 Credits

Community College of Baltimore County

Description

CSIT 241 – Applied Systems Analysis and Design discusses systems analysis and design that emphasizes the Systems Life Cycle Concept; includes contemporary theories of planning, organizations, communications, investigation, control, and the skills and techniques necessary for design and implementation of a software system.

4 Credits

Prerequisite: CSIT 111

Overall Course Objectives

Upon completion of this course students will be able to:

1. define the phases and tasks of the system development life cycle (SDLC);
2. describe the responsibilities of a systems analyst and identify to whom the systems analyst is responsible;
3. describe the modern approaches to systems analysis and design;
4. contrast the traditional, structured, and object-oriented analysis/design methodologies;
5. describe the makeup of systems project teams, identifying the role and contribution of users, systems analysts, programmers, and technical support personnel;
6. identify and explain differences and relationships of logical and physical models of computer information systems;
7. identify and model the data and processes of a business;
8. define and employ the various information gathering techniques to document the business requirements;
9. construct and understand the functional description and documents of a system;
10. demonstrate a fundamental knowledge of the skills needed to construct the system's process model and the data model combining data flow diagrams and ER diagrams; and
11. apply good teamwork skills during the generation of a SAD project.

Major Topics

- I. Introduction to Information Systems
 - A. Types of information systems
 - B. Organizational levels
 - C. Systems development life cycle
- II. Preliminary Investigation
 - A. Preliminary investigation objectives
 - B. Preliminary investigation steps

- III. Determining Requirements
 - A. Interviews
 - B. Observation
 - C. Sampling
 - D. Questionnaires
- IV. Analyzing Requirements
 - A. Data flow diagrams
 - B. Data Dictionary
- V. Evaluating Alternatives and Strategies
 - A. Software alternatives
 - B. Hardware alternatives
 - C. Systems Requirements Document and Management Presentation
- VI. Output Design
- VII. Input Design
- VIII. Database Design
 - A. E-R Diagrams
 - B. Relational Design and Normalization
 - C. Object-Oriented Systems Analysis and Design (OOSAD)
- IX. Systems Architecture
 - A. Application Development
 - B. Coding
 - C. Testing Consistency in capitalization; some are all capitalized and some not
 - D. Documentation
- X. Installation and Evaluation
 - A. Training
 - B. System Changeover
- XI. Systems Operation and Support
- XII. Project Management Tools
- XIII. Feasibility and Cost Analysis

Course Requirements

Grading procedures will be determined by the faculty member, will be provided the first week of class, and will include:

1. Minimum of 1 group project (to include both written and oral presentations)
2. Minimum of 1 individual project
3. Minimum of 2 tests

Written Assignments: Students are required to use appropriate academic resources.

Other Course Information

This course is an elective in the Information Technology program. This course is taught in a computerized environment.