

Structured Systems Analysis

CDT800

This course involves 10 hands-on individual and group exercises. The course helps students understand and implement a phased system development life cycle (SDLC) from project inception to the point of alternative implementation evaluation.

Audience

- Systems Analysts
- Programmer Analysts
- Project Leaders
- End Users

Prerequisites

- General knowledge of data processing

Course Length

- Three Days

Learning Objectives

- Understand the need for the system development life cycle
- Gain skills in conducting effective data gathering
- Be able to use data flow diagrams to document information flow
- Learn how to write a functional system specification
- Be able to identify and evaluate implementation alternatives

Teaching Methods

- A combination of concise lecture and hands-on group and individual exercises are used to gain and keep the interest of participants with work stimulating real-life situations. A group presentation project is included.
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Course Outline

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The SDLC: Why and What?

- Roles of people and information in organizations
- Phases of systems analysis
- Deliverables and evaluation

The System Survey and Study Phase

- What starts a project?
- The “quick look” and cost/benefit analysis
- Writing the initial survey recommendation
- Data gathering techniques

Essentials of Data Flow Diagramming

- What is a data flow and what is a process?
- Top-down physical data flow diagramming
- Understanding potential system requirements with entity-relationship modeling
- Building and using a data dictionary

Defining User Requirements

- Making your ideas user-understandable
- Guarding against scope creep
- Evolving alternative implementations
- Cost/benefit analysis and selling recommendations

Developing the Functional Specification

- Defining the system
- Specifying inputs, outputs, and processing
- Contents of the functional spec
- Audiences for the functional spec

CASE and Systems Analysis

- Prototyping: benefits and pitfalls
- CASE beyond prototyping
- Action diagrams and structured specifications