

System Analysis and Design

This course introduces students to system analysis and design systems, topics include: System analysis and design fundamentals: role of systems analysis and design, concepts, system development life cycle (SDLC), using CASE tools, data flow diagrams symbol conventions (external entity, data flow, process data store), building dataflow diagram using data dictionary: problem of describing data, describing the contents of data dictionary, manual vs automated data dictionary. Analyzing and presenting process logic: expressing logic, defining the contents of data stores. Design methods, automation boundary, alternative implementations, system physical elements, programs, files, manual procedure and training, forms. Analysts' recommendations, detailed design, identifying options, system control program, screens, reports and files, test plan, implementation and maintenance. Introduction to object oriented analysis and design, OO modeling techniques, OO design, OO design process, an introduction to patterns and mapping objects onto a relational database.