



NEAR EAST UNIVERSITY

FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES

DEPARTMENT OF COMPUTER INFORMATION SYSTEMS

CIS 331 – Course Notes
(System Analysis Method)

Textbook: Systems Analysis and Design, Tenth Edition, Course Technology, Cengage Learning Incorporated, 2013, ISBN: 978-1-285-17134-0

Systems Analysis and Design, Tenth Edition, contains 16 learning units in twelve chapters.

Chapter 1 -Introduction to Systems Analysis and Design Chapter 1 provides an up-to-date overview of IT issues, major trends, and various systems development approaches, including structured, object-oriented, and agile methods. The chapter emphasizes the important role of systems analysis and design in supporting business objectives.

Chapter 2- Analyzing the Business Case Chapter 2 offers a business-related starting point for successful systems analysis. Topics include strategic planning, review of systems requests, how to conduct a feasibility study, and the steps in a preliminary investigation.

Chapter 3 -Managing Systems Projects Chapter 3 explains project management, cost estimating, and change control for information systems. This chapter includes hands-on skills that systems analysts can use to create Gantt charts and PERT charts.

Chapter 4- Requirements Modeling Chapter 4 describes fact-finding techniques and team-based modeling methods, including JAD and RAD, that systems analysts use to model and document a new system.

Chapter 5 - Data and Process Modeling Chapter 5 explains how systems analysts create a logical model for the new system by using data flow diagrams and process description tools, including structured English, decision tables, and decision trees.

Chapter 6 - Object Modeling Chapter 6 explains object-oriented tools and techniques, including use case diagrams, class diagrams, sequence diagrams, state-transition diagrams, activity diagrams, and the Unified Modeling Language.

Chapter 7- Development Strategies Chapter 7 focuses on software acquisition options, including outsourcing and offshore outsourcing options, application service

providers, and other trends that view software as a service rather than a product.

Chapter 8 - User Interface Design Chapter 8 highlights output and report design, the interaction between humans and computers, including usability issues, graphical screen design, input issues, and data entry guidelines.

Chapter 9-Data Design Chapter 9 describes data design terms, concepts, and skills including entity-relationship diagrams, cardinality, data normalization rules, data warehousing, data mining, a comparison of logical and physical records, and data control measures.

Chapter 10-System Architecture Chapter 10 explains the elements of system architecture, with emphasis on RFID, ERP, supply chain management, client/server architecture, and network topology, including wireless networking standards and trends.

Chapter 11 - Managing Systems Implementation Chapter 11 includes coverage of application development and implementation topics, including structure charts, documentation techniques, system testing, user training, data conversion, changeover methods, and post-implementation evaluation.

Chapter 12-Managing Systems Support and Security Chapter 12 describes user support, maintenance techniques, and factors that indicate the end of a system's useful life. This chapter explains IT security concepts, techniques, and tools, and specifically addresses six security levels: physical, network, application, file, user, and procedural security. Chapter 12 also describes risk management, data backup and disaster recovery, and explains future challenges and opportunities that IT professionals will face in a dynamic workplace.