Daffodil Institute of IT (DIIT)

Department of Computer Technology

Semester Plan

Course: System Analysis and Design

Course Code:66671

Semester: 7th

Objectives

- To provide the students with an opportunity to acquire knowledge, skill and attitude in the fields of system analysis, design
- Computer based development with special emphasis on system concept, system development life cycle, system analysis, system design & Development, implementation & Information security and object-oriented system design

Course Teacher

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Syllabus:

SL NO	SUBJECT CODE	NAME OF THE SUBJECT	T	C	P	MARKS				TOTAL
						THEORY		PRACTICAL		
						CON. ACCESS	FINAL EXAM	CON. ACCESS	FINAL EXAM	
1	66671	System Analysis and Design	2	3	3	40	60	25	25	150

Course Plan

Class	Chapter	
1	1	**1. Understand the elements of information systems and management.** 1.1 Define system and information systems. 1.2 Mention the characteristics of systems. 1.3 Describe the key elements of a system. 1.4 Define open and closed system.

2	1	**1. Understand the elements of information systems and management.** 1.5 Describe the characteristics of open system. 1.6 Describe the categories of information. 1.7 State the qualities of information. 1.8 State the need of computer based information system.
3	2	**2. Understand the Organizational functions and system development life cycle.** 2.1 State the common functions of an organization. 2.2 State the various functions an educational institution. 2.3 State the functions of various departments of a manufacturing organization.
4	2	**2. Understand the Organizational functions and system development life cycle.** 2.4 Describe the Management and Information System levels in an organization. 2.5 State the meaning of system development life cycle. 2.6 Describe the function of each stages of system development life cycle (SDLC).
5	3	**3. Understand the roles of system analyst and functions of MIS facility center.** 3.1 State the meaning of systems Analyst and system analysis 3.2 Describe the skills required for a system analyst. 3.3 Describe the relationship between interpersonal and technical skills required in different stages of system development.
6	3	**3. Understand the roles of system analyst and functions of MIS facility center.** 3.4 Mention the primary functions of an MIS facility center. 3.5 State the activities of administrator in an MIS facility center. 3.6 Describe different structures of systems analysis. 3.7 Describe different functions, responsibilities and duties of system analyst, programmers and operators 3.2.1. Existing database and location are accessed
7	4	**4. Understand the process of initial investigation and information gathering.** 4.1 Mention the steps of systems analysis. 4.2 State the meaning of system planning. 4.3 List the probable fields of a user request form.
8	4	**4. Understand the process of initial investigation and information gathering.** 4.4 Describe the steps of initial investigation process. 4.5 Mention the sources and categories of information. 4.6 List the information gathering tools

9	4	**4. Understand the process of initial investigation and information gathering.** 4.7 Mention the phases of information gathering. 4.8 Describe the information gathering methods. 4.9 State the guideline of a successful interview. 4.10 State the types of questionnaires
10	5	**5. Understand the tools of structured analysis.** 5.1 State the meaning of structured analysis. 5.2 List the name of tools of structured analysis. 5.3 Define physical document flow diagram and logical data flow diagram (DFD). 5.4 State the meaning and functions of DFD symbols.
11	5	**5. Understand the tools of structured analysis.** 5.5 Mention the thumb rules of drawing DFDs. 5.6 Draw sample document flow diagram and data flow diagram (DFD). 5.7 State the meaning of decision trees, decision table, structured English and data dictionary. 5.8 Prepare DFD, decision trees, decision table, structured English and data dictionary for sample small process like store/purchase/accounts /order/receive etc.
12	6	**6. Understand the feasibility analysis.** 6.1 Mention the meaning of feasibility study. 6.2 Describe the economic, technical and behavioral feasibility. 6.3 Describe the steps in feasibility analysis.
13	6	**6. Understand the feasibility analysis.** 6.4 State the categories of cost and benefit. 6.5 State the procedure for cost/benefit determination. 6.6 State the alternating solutions to be examined during feasibility analysis. 6.7 State the content of feasibility report.
14	7	**7. Understand the system design and development.** 7.1 Mention the meaning of systems design and development. 7.2 Distinguish between logical design and physical design. 7.3 Mention activities covered in systems design and development.
15	7	**7. Understand the system design and development.** 7.4 Mention the steps in physical systems design and design methodologies. 7.5 Mention the meaning of input/output design. 7.6 Mention the characteristics of different forms.
16	7	**7. Understand the system design and development.** 7.7 Describe the factors to be considered to design a form.

		7.8 Describe the objectives of database and steps of database design. 7.9 State the structure and general principles to be used in designing output reports.
17	8	**8. Understand the process of systems testing and security.** 8.1 Describe the objectives of control and testing the information systems. 8.2 Describe different types of systems test. 8.3 Describe the quality factor specification.
18	8	**8. Understand the process of systems testing and security.** 8.4 State the term Information Security Management System (ISMS) 8.5 Explain the information security risk management process. 8.6 State the requirements to be met to ensure security of information systems.
19	9	**9. Understand the implementation and software maintenance activities.** 9.1 Mention the activities considered in systems conversion. 9.2 Describe the need of user training. 9.3 Describe the post implementation activities
20	9	**9. Understand the implementation and software maintenance activities.** 9.4 State the points to be mentioned for requesting proposal from vendors. 9.5 Prepare a feature form to make a comparative evaluation of vendors' proposal for computer system.
21	10	**10. Understand the concept of object-oriented approach.** 10.1 Define object-oriented analysis and design. 10.2 State the elements of Object-Oriented system. 10.3 Distinguish between structured approach and object-oriented approach
22	10	**10. Understand the concept of object-oriented approach.** 10.4 Define Unified Modeling Language (UML). 10.5 State the ways to apply UML. 10.6 Describe the perspectives to apply UML. 10.7 Describe the object-oriented system development life cycle.