

**ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
(Department of Business Administration)**

SYSTEM ANALYSIS AND DESIGN (816)

CHECKLIST

SEMESTER: SPRING, 2014

This packet comprises the following material:

1. Text Book
2. Course Outline
3. Assignment No 1 & 2
4. Assignment Forms (2 sets)

Please contact at the address given below if you find any thing missing out of the packet.

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WARNING

- 1. PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.**
- 2. SUBMITTING ASSIGNMENTS BORROWED OR STOLEN FROM OTHER(S) AS ONE'S OWN WILL BE PENALIZED AS DEFINED IN "AIOU PLAGIARISM POLICY".**

Course: System Analysis and Design (816)
Level: MBA

Semester: Spring, 2014
Total Marks: 100
Pass Marks: 40

Guidelines for Assignment No. 1 & 2:

The student should look upon the assignments as a test of knowledge, management skills, and communication skills. When you write an assignment answer, you are indicating your knowledge to the teacher:

- Your level of understanding of the subject;
- How clearly you think?
- How well you can reflect on your knowledge & experience?
- How well you can use your knowledge in solving problems, explaining situations, and describing organizations and management?
- How professional you are, and how much care and attention you give to what you do?

To answer a question effectively, address the question directly, bring important related issues into the discussion, refer to sources, and indicate how principles from the course materials apply. The student must also be able to identify important problems and implications arising from the answer.

For citing references, writing bibliographies, and formatting the assignment, APA format should be followed.

ASSIGNMENT No. 1
(Units: 1–5)

- Q. 1 Explain different business and technology drivers that influence the development of information systems. **(20)**
- Q. 2 Discuss the nature and importance of Prototyping. How it helps to system development and what challenges can be posed if prototyping phase is ignored during whole process? **(20)**

- Q. 3 Explain different alternative routes or methodological strategies for information system development with the help of examples. **(20)**
- Q. 4 How data flow diagrams (DFDs) document helps during the system analysis phase? Draw a logical DFD for your official working. How each of daily activities are executed and coordinated? **(20)**
- Q. 5 Differentiate among various alternative database implementation models such as relational, network or linked, and hierarchical, by highlighting the main features of each. **(20)**

ASSIGNMENT No. 2
(Units: 5–9)

1. This assignment is a research-oriented activity. You are required to develop a term paper and present the same in the classroom prior to the final examination.
2. You will have to participate in the activity fully, actively, and practically to be eligible to sit in the final examination of the course. The Presentation component of each course is mandatory for all students.
3. For the preparation of this assignment, you should first thoroughly review the conceptual framework of the topic and develop a scholarly material of the same giving references, quotations, and extracts of various scholars and experts. You are requested to obtain information relating to any business/commercial organization. Combining the theoretical and practical aspects, develop a comprehensive paper consisting of at least 20 to 25 typed pages to be presented in the class.
4. Include the following main headings in your assignment:
 - a) Introduction of the topic
 - b) Important sub-topics
 - c) Practical study of the organization with respect to the topic review of theoretical and practical situations gaps, merits, de-merits, deficiencies or strengths of the organization with respect to the topic under study.
 - d) Conclusions and recommendations
 - e) Annex, if any
5. Prepare two copies of this assignment and submit one copy to your tutor and use other one for your presentation in the workshop.

6. You are supposed to present and discuss this assignment in the presence of resource persons and your course mates in the classroom.
7. You should prepare the transparencies, charts, or any other illustrative material for effective presentation.
8. You are advised to consult source material frequently. If you need any guidance, you may contact your tutor or the respective study centre in which you have been enrolled.
9. If you fail to present this assignment in the class, then you will not be able to sit in the final examination conducted by AIU.
10. A number of topics given below are the general aspects of the course and you are required to select one of the topics according to the last digit of your roll number. For example, if the roll number is F-9337241, you will select topic number 1, and if the roll number is D-3427185 then you will select topic number 5 (the last digit).
 0. Preliminary Investigation
 1. Logical Modeling with Entity Relationship Diagrams (ERDs)
 2. Logical Modeling with Data Flow Diagrams (DFDs)
 3. Feasibility Study and its Importance
 4. Requirement Analysis
 5. Designing Computer Inputs
 6. Designing Computer Outputs
 7. Modern Information Systems
 8. Role of System Analyst in System Analysis and System Design
 9. Implementing and Evaluating New System

SYSTEMS ANALYSIS AND DESIGN

Course Outline (MBA-816)

- Unit – 1:** **Introduction to Systems Analysis & Design**
- 1.1 Introduction to Information Systems (IS) and System Players/ Stakeholders
 - 1.2 System Stakeholders: The players of Information Systems
 - 1.3 Business Drivers & Technology Drivers for Information Systems (IS)
 - 1.4 System Development Process. Life cycle Stages and Methodologies
 - 1.5 Automated Tools & Technology
- Unit – 2:** **Project Management**
- 2.1 Introduction to Project Management
 - 2.2 Life Cycle Activities of Project Management
 - Negotiating Scope of a Project
 - Identifying Tasks of a Project
 - Estimating Task Duration
 - Specifying Intertask Dependencies
 - Assigning Resources
 - Directing the Team Effort
 - Monitoring & Controlling Progress
 - Evaluating Results & Experience of a Project
- Unit – 3:** **System Analysis Phase**
- 3.1 Introduction to System Analysis and its various Approaches
 - 3.2 Steps of Scope Definition and Problem Analysis Phase
 - 3.3 Steps of Requirement Analysis Phase
 - 3.4 Steps of Logical Design Phase
 - 3.5 Decision Analysis Phase and its tasks
 - 3.6 Introduction to Feasibility Analysis
 - Feasibility Checkpoints during Systems Analysis
 - Conducting Feasibility Tests
 - Techniques used for Cost-Benefit Analysis
 - Feasibility Analysis of Candidate Solutions and Proposing a System
- Unit – 4:** **Requirements Discovery Phase**
- 4.1 Introduction to Requirement Analysis, Logical Design Phase, and their Tasks
 - 4.2 Introduction to Requirements Discovery and its Process
 - 4.3 Using Fact-Finding Techniques for Requirements Discovery
 - 4.4 System Requirements Use Case Modeling

- Unit – 5: Data & Process Modeling**
- 5.1 Introduction and System Concepts for Data Modeling
 - 5.2 The Process of Logical Data Modeling
 - 5.3 Constructing and Analyzing Data Models
 - 5.4 Introduction and System Concepts for Process Modeling
 - 5.5 The Process of Logical Process Modeling
 - 5.6 Constructing Process Models
 - 5.7 Analyzing Object Oriented Systems and Introduction to Object Modeling
- Unit – 6: Systems Design and Architecture Design**
- 6.1 Introduction to Systems Design & its Various Approaches
 - 6.2 System Design Tasks for In-House Development and for Commercial Software
 - 6.3 Introduction to Application Architecture
 - 6.4 Drawing Physical Data Flow Diagrams
 - 6.5 Introduction to Information Technology Architecture
 - 6.6 Strategies of Application Architecture
 - 6.7 Application Architecture Modeling of a System
 - 6.8 Creating an Architecture Design
 - 6.9 Introduction to Database Design
 - 6.10 Conventional Files vs. the Database
 - 6.11 Database Concepts for the Systems Analyst
 - 6.12 Prerequisite for Database Design: Normalization
 - 6.13 Conventional File Design vs. Modern Database Design
- Unit – 7: User Interface (Output & Input) Design**
- 7.1 Introduction to Computer Output Design, its Principles and Designing Outputs
 - 7.2 Introduction to Computer Input Design, its Principles and Designing Inputs
 - 7.3 Graphical User Interface (GUI) Controls for Input Design
 - 7.4 Introduction to User Interface Design, its Principles and Designing an Interface
 - 7.5 User Interface Technology. Style and Considerations
- Unit – 8: Database Design**
- 8.1 Introduction to Database
 - 8.2 Introduction to Normalization
 - 8.3 Conventional File Designing Vs. Modern Database Designing
 - 8.4 Designing Object-Oriented Systems
- Unit – 9: Implementation & Support Stage**
- 9.1 Introduction to Systems Construction and Implementation Phase; and their Tasks

- 9.2 Introduction to Systems Operation and Support Phase
- System Maintenance
 - System Recovery
 - Technical Support
 - System Enhancement

RECOMMENDED BOOKS

System Analysis & Design Methods *by: Whitten Bentley (7th Edition)*
System Analysis & Design *by: Dennis, Wixom, Roth*

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