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

SYSTEM ANALYSIS AND DESIGN (5546)

(CHECK LIST)

SEMESTER AUTUMN 2013

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 (5546)   **Semester: Autumn 2013**
Level: MBA   **Total Marks: 100**
     Pass Marks: 40

ASSIGNMENT No. 1
(Units: 1–4)

Q. 1 Highlight various stakeholders of information system. Briefly describe each player with their characteristics. **(20)**

Q. 2 Discuss key life cycle activities of project management in detail? **(20)**

Q. 3 What are the various approaches of systems analysis for solving business system problems? Explain. **(20)**

Q. 4 How would you analyze object oriented systems. Do you find any difference between object modeling and object oriented systems? Discuss in detail. **(20)**

Q. 5 Write short notes on the followings: **(7+7+6)**
- Feasibility Analysis
- Evaluating Results of a Project
- Estimating Task Duration

Guidelines for Assignment # 1

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.

Prepare your assignment as per the guidelines and it may be re-evaluated by the Quality Assurance Cell, Department of Business Administration at any time.

ASSIGNMENT No. 2

Total Marks: 100

This assignment is a research-oriented activity. You are required to obtain information from a business/commercial organization and prepare a report of about 1000 words on the topic allotted to you to be submitted to your teacher for evaluation.

You are required to select one of the following topics according to the last digit of your roll number. For example, if your roll number is P-3427180 then you will select issue # 0 (the last digit): -

0. Prototyping Technique for System Design
1. Providing Technical Support for an Information System
2. Application of E-commerce in a Business
3. Development of Object Oriented Systems
4. Conventional Files Vs. Databases
5. Information Systems Maintenance
6. Relational Database Management Systems
7. Technology Drivers for Information Systems
8. Economic Feasibility Study and its Importance
9. Current Trends in Modern Information Systems

The report should follow the following format:
1. Title page
2. Acknowledgements
3. An abstract (one page summary of the paper)
4. Table of contents
5. Introduction to the topic
6. Practical study of the organization with respect to the topic
7. Data collection methods
8. Merits, demerits, deficiencies or strengths of the organization with respect to topic under study
9. Conclusion (one page brief covering important aspects of your report)
10. Recommendations (specific recommendations relevant to issue assigned)
11. References (as per APA format)
12. Annexes (if any)

Guidelines For Assignment # 2:

- 1.5 line spacing
- Use headers and subheads throughout all sections
- Organization of ideas
- Writing skills (spelling, grammar, punctuation)
- Professionalism (readability and general appearance)
- Do more than repeat the text
- Express a point of view and defend it.

Workshops

The workshop presentations provide students opportunity to express their communication skills, knowledge & understanding of concepts learned during practical study assigned in assignment # 2.

You should use transparencies and any other material for effective presentation. The transparencies are not the presentation, but only a tool; the presentation is the combination of the transparencies and your speech. Workshop presentation transparencies should only be in typed format.

The transparencies should follow the following format:

1. Title page
2. An abstract (one page summary of the paper)
3. Introduction to the topic
4. Practical study of the organization with respect to the topic
5. Data collection methods
6. Merits, demerits, deficiencies or strengths of the organization with respect to topic under study
7. Conclusion (one page brief covering important aspects of your report)
8. Recommendations (specific recommendations relevant to issue assigned)

Guidelines for workshop presentation:

- Make eye contact and react to the audience. Don't read from the transparencies or from report, and don't look too much at the transparencies (occasional glances are acceptable to help in recalling the topic to cover).
- A 15-minute presentation can be practiced several times in advance, so do that until you are confident enough. Some people also use a mirror when rehearsing as a substitute for an audience.

Weightage of theory & practical aspects in assignment # 2 & workshop presentations

Assignment # 2 & workshop presentations are evaluated on the basis of theory & its applicability. The weightage of each aspect would be:

Theory:	60%
Applicability (practical study of the organization):	40%

Prepare your assignment as per the guidelines and it may be re-evaluated by the Quality Assurance Cell, Department of Business Administration at any time.

SYSTEMS ANALYSIS AND DESIGN
Course Outline (MBA-5546)

Unit – 1:   <u>**Introduction to Systems Analysis & Design**</u>
  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:   <u>**Project Management**</u>
  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:   <u>**System Analysis Phase**</u>
  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:   <u>**Requirements Discovery Phase**</u>
  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:   <u>**Data & Process Modeling**</u>
  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:   <u>Systems Design and Architecture Design</u>
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:   <u>User Interface (Output & Input) Design</u>
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:   <u>Database Design</u>
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:   <u>Implementation & Support Stage</u>
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

<u>**RECOMMENDED BOOKS**</u>
System Analysis & Design Methods   *by: Whitten Bentley (7th Edition)*
System Analysis & Design   *by: Dennis, Wixom, Roth*
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