ISLAMIC UNIVERSITY OF TECHNOLOGY

Course Outline and Course Plan

Name of the Teacher	**Njayou Youssouf**	**Position**	**Lecturer**
Department	**CSE**	**Programme**	**B.Sc. Engg. And HDEE**
Course Code	**CSE 4407**	**Course Title**	**System Analysis and Design**
Academic Year	**2017-18**	**Semester**	**Summer**
Contact Hours	**2 hours per week**	**Credit Hours**	**2.00**
Text books and Reference books (if any)	**1. System analysis and design 2. System analysis and design**	**Authors of the books**	**1. Kendall & Kendall 2. Elias M. Awad**
Prerequisites (If any)			
Course Homepage			

Teaching Methods/ Approaches	**√ Lecture**	**☐ Group discussion**	**√ Demonstration**	**√ Problem solving**
	√ Project	**☐ Others:**		
Teaching aids	**√ Multi-media**	**√ OHP**	**√ Board and Marker**	**Others**

Course Assessment Method								
Attendance (10%)	**Quiz 15% of Total Marks (Best 3 out of 4)**						**Mid Semester (25%)**	**Semester Final (50%)**
	1st Quiz	**2nd Quiz**	**3rd Quiz**	**4th Quiz**	**Others**		**Week/Date**	**Week/Date**
	Week/Date	**Week/Date**	**Week/Date**	**Week/Date**	**Assignment**	**Homework**		
	3rd	**6th**	**9th**	**12th**	**0**	**0**	**8th Week**	**15th Week**

Course Contents	**System concepts, System and System analysis, system planning, approach to systems development, user involvement, feasibility assessment. System investigations: objectives, methods, recording. Logic System Design, Physical Design of computer and manual sub-system, project management and documentation.** **Software Project Management: life cycle, specification design, documentation, maintenance and control. Nature and sources of software tools. Program system organization, analysis of program performance, testing and verification methods, editing formatting, Micro processing co-ordination of multiple programs.**
Course Objective	**1. To learn the basics of System Concepts 2. To learn the basics of Software project management**

Weekly plan for course content		
Weeks	**Topics**	**Task/Reading**
1	**System and System Analysis**	
2	**System Planning: System Development Life Cycle**	
3	**Project Management, Determining Feasibility, Assessing Hardware and Software needs**	
4	**Information Gathering: Interview, types, structures**	

5	**Information Gathering: JAD, Questionnaires**	
6	**Analyzing System: Using Data Flow Diagram (DFD)** **Database Design: ER diagram**	
7	**Data Dictionary, Decision Table, Decision Tree, Structured English, Gantt Chart, Pert Chart**	
8	**Break-even point Analysis, Cash Flow Diagram, Payback Analysis, Present Value Analysis**	
9	**Object-oriented System Analysis and Design using UML: Use Case, Activity, Sequence and Class diagram**	
10	**Agile Model and Prototyping: Prototyping, RAD**	
11	**Agile Modeling: Values and Principles of Agile Modeling, Activities, Resources, and Practices of Agile Modeling, The Agile Development Process**	
12	**Quality Assurance and implementation: The total quality management approach, Documentation approach**	
13	**Software testing, maintenance and verification methods**	
14	**Evaluation: Evaluation Techniques, The information system utility approach**	
15	**Micro processing co-ordination of multiple programs**	

Student's consulting hour: Wednesday 2:30 PM to 3:00 PM

Instructor contact details:

Njayou Youssouf,
Room No: **503**, Academic Building-2,
IUT, Board bazar, Gazipur.
Mo: **01793570834**
E-mail: **njayou@iut-dhaka.edu**