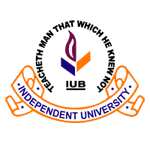
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**Independent University, Bangladesh**

**Department of Computer Science & Engineering**

**C**

**CSE 307: System Analysis and Design**

**Summer 2019**

**Course Outline**

**Instructor’s Details:**

Sabrina Alam

Lecturer

Room Number: 5007 - B

Visiting Hours:

Email: sabrina.0417@gmail.com

**Class Detail:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course ID** | **Sec. No.** | **Course Title** | **Cr. Hr.** | **Instructor's Name** | **Days** | **Time** | **Room** |
| CSE 307 | 1 | System Analysis and Design | 3.00 | Ms. Sabrina Alam |  |  |  |

**Course Description:**

Systems and models; Project management; Tools for determining system requirements; data flow diagrams; decision table and decision trees; Systems analysis: systems development life cycle models. Object oriented analysis: use-case modeling, Unified Modeling Language. Feasibility analysis, Structured analysis; systems prototyping; system design and implementation: application architecture, user interface design. Front-end and backend design; database design; software management and hardware selection. Case Studies of Information Systems. (Prerequisite CSE 303)

**Course Policy:**

1. Regular class attendance is mandatory.
2. All course materials will be available at Piazza, the online forum, for students to follow.
3. Students should take tutorials with the instructor during the office hours, otherwise prior appointment is required.
4. Students must join the common online forum (detail instructions are provided in the class) within the first week of the semester.
5. Plagiarism – that is, the presentation of another person’s project, homework, ideas, thoughts or words as though they were the student’s own – must be strictly avoided. Cheating and plagiarism on exam and assignments are unacceptable and will be penalized.
6. Late assignments are discouraged and will be penalized.
7. Without proper excuse, no make-up quizzes will be arranged for the students who will fail to attend the quizzes on the scheduled dates.
8. Students must maintain the IUB code of conduct and ethical guidelines offered by the School of Engineering and Computer Science.

**University Regulation and Code of Conduct:**

Please see the Green Book for further information about academic regulation and policies, including withdrawal and grading, appeals and penalties for plagiarism and academic misconduct.

**Students with Disabilities:**

Students with disabilities are required to inform the Department of CSE of any specific requirement for classes or examination as soon as possible.

**Audit:**

Students who are willing to audit the course are welcome during the first two classes and are advised to contact the instructor after that.

**Assessment and Marks Distribution:**

Students will be assessed on the basis of their overall performance in all the Quizzes, Assignments, Term Paper, Final Presentation and Class Participation. Final numeric reward will be the compilation of:

* Assignments – 10%
* Quizzes – 15%
* Mid Term – 20%
* Final Exam – 25%
* Presentation – 10%
* Project-20%

**Grade Conversion Scheme:**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A** | **A-** | **B+** | **B** | **B-** | **C+** | **C** | **C-** | **D+** | **D** | **F** |
| 85-100 | 80-84 | 75-79 | 70-74 | 65-69 | 60-64 | 55-59 | 50-54 | 45-49 | 40-44 | 0-39 |

\* Numbers are inclusive

**Text Books:**

* Systems Analysis and Design; 9e; Kenneth E. Kendall, Julie E. Kendall

**Course Content and Class Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** | **Session** | **Topics** | **Reading Material** |
| Week 1 | Session 1 | **Class Introduction**  **SYSTEMS ANALYSIS FUNDAMENTALS**  Introduction of System Analysis & Design, System Engineering Lifecycles | **Lecture 00, 01 , 02**  **Chap 1,2**  **(Kendall & Kendall)** |
| Session 2 | Understanding and Modeling Organizational Systems |
| Week 2 | Session 3 | **INFORMATION REQUIREMENTS ANALYSIS**  Information Gathering: Interactive Methods | **Lecture 4, 5**  **Chap 4, 5**  **(Kendall & Kendall)** |
| Session 4 | Information Gathering: Unobtrusive Methods |
| **Week 3** | Session 5  **Quiz 1 (20 May, 2019) (Chap 1, 2)** | Agile Modeling and Prototyping | **Lecture 6**  **Chap 6**  **(Kendall & Kendall)** |
| Session 6 | **Assignment 1 (Due Date: 22 May, 2019)**  Agile Modeling and Prototyping |
| Week 4 | No Class | | |
| **Eid ul Fitr** | | | |
| Week 5 | No Class | | |
| Week 6 | Session 7 | **Project Management (Makeup on 19 January 2019)** | **Lecture 3**  **Chap 3**  **(Kendall & Kendall)** |
| Session 8 | **Project Management (Cont...) (Makeup on 19 January 2019)** |
| **Week 7** | **Review** | | **Lecture 01 – 06**  **Chap 1-6**  **(Kendall & Kendall)** |
| **Midterm Exam**  **(26 June, 2019)** | |
| Week 8 | Session 9 | Using Data Flow Diagrams | **Lecture 8, 9**  **Chap 7, 9**  **(Kendall & Kendall)** |
| Session 10 | **Assignment 2 (Due Date: 3 July, 2019)**  Process Specifications and Structured Decisions |
| Week 9 | Session 13 | **THE ANALYSIS PROCESS**  Object-Oriented Systems Analysis and Design Using UML | **Lecture 07**  **Chap 10**  **(Kendall & Kendall)** |
| Session 14 | Object-Oriented Systems Analysis and Design Using UML |
| Week 10 | Session 15 | Designing Effective Output | **Lecture 10**  **Chap 11**  **(Kendall & Kendall)** |
| Session 16 | Designing Effective Output |
| Week (Make up) | Session 17 | Designing Effective Input | **Lecture 11**  **Chap 12**  **(Kendall & Kendall)** |
| Session 18 | Designing Effective Input |
| Week 11 | Session 19 | Designing Databases | **Lecture 12**  **Chap 13**  **(Kendall & Kendall)** |
| Session 20 | Designing Databases |
| Week 12 | Session 21 | Human-Computer Interaction | **Lecture 13**  **Chap 14**  **(Kendall & Kendall)** |
| Session 22 | Human-Computer Interaction |
| **Week 13** | **Final Exam** |  | **Lecture 8 – 13**  **Chap 7, 9, 11, 12, 13, 14** |