**Near East university**

Faculty of Economics and Administrative Sciences

CIS 363(software Engineering),course outline

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|---|---|---|
| **Classroom:** Faculty Building, CIS LAB | **Course schedule**: | |
| **Instructor**: Sahar SHOKOUHI TABRIZI | **Office hours:** check the time table | |
| **Email: sahar.**shokouhi@neu.edu.tr | | |
| **Further Reading:** Check Reference Section | | |
| **Prerequisites**: CIS 232 | **Semester**: Fall / Spring | **Course Credit**: 3 |
| **Language of Education**: English | **Type of Course**: compulsory | **Level of Course**: undergraduate |

**Course objective:**

The aim of this course is to give students an introduction to the principles and practice of analysis, design and implementation of software engineering principles. Through experience of building a significant software system in a team, students will further their experience and understanding of the problems that arise in building complex software systems. They will develop the analytical, critical and modeling skills that are required by a successful software engineering. Additionally, they will learn the principles of software life cycle and software documentation

**Course Objectives:**

- Understand software process
- Be able to create and understand Unified Modeling language(UML) diagrams
- Be able to meet software requirements
- Be familiar with documentation
- Be familiar with management

## Tentative Syllabus

| Week | Topic |
|---|---|
| 1 | Introduction to software engineering |
| 2 | Introduction to user interface design and software design standards |
| 3 | Introduction to Software life cycle model |
| 4 | Requirements analyses |
| 5 | RUP, prepare proposal for term project |
| 6 | Introduction to Modeling |
| 7 | Modeling Analyses |
| 8 | Introduction Planning and managing the process , Revision |
| 9 | Mid-Term |
| 10 | Introduction Diagrams (high level DFD), USECASE |
| 11 | Introduction Class diagram, sequence diagram, swim lane diagram |
| 12 | Introduction Requirement documentation, Prototyping approach Evaluating and testing |
| 13 | Project presentation, Review |
| 14 | Final-Exam |

**Course Assessment:**

Grades in this course will be assigned according to the following criteria:

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|---|---|
| **Class participation** | **5%** |
| **Class activity** | **5%** |
| **Term project** | **20%** |
| **Mid-term Examination** | **30%** |
| **Final Examination** | **40%** |
| **Total** | **100%** |

**References**:


1)Bohem, B. w. (1988). A spiral model of software engineering and enhancement. Computer 21(5).

2)Ghezzi, C., Jazayeri, M. & Mandrioli, D. (2003). Fundamentals of software engineering (2nd Edition) United Kingdom: Prentice Hall

3)Maciaszek, L., Liong, B., L. (2005). Practical Software Engineering: A Case-Study Approach. England: Pearson.

4)Schach, S., R. (1999). Classical and object-oriented software engineering with UML and Java. USA: WCB/McGraw-Hill

5)Sommerville, I. (2004). Software engineering  edition. England: Pearson

6)Tomayko, J., & Hazzan, O. (2004)**.** Human Aspects of Software Engineering. United States: Charles River Media.


**Lecture Note**:

Saied Parsa (2011), Tehran University - W. Venters (2011), University of London - Ivan Marsic (2012). Rutgers University - Peter Grogono(1995), Concordia University