CEng 451- Information Systems Development
Fall 2020 (2020-1)

Instructor: Ali Dogru (Room: A-204, Phone: 5590) dogru@ceng.metu.edu.tr

Course Objectives and conduct:

Students are expected to gain insight to current Software Engineering methodologies, also gain modeling experience with specifically "**UML**" and some selected approaches for modern software development. Also apply and demonstrate gained modeling capabilities and conduct partial development on projects. There will be 3 different projects, mostly covering 'modeling' aspects of development. Team size is 3.

Text books :

- Grady Booch, James Rumbaugh, Ivar Jacobson, *The Unified Modeling Language User Guide*, Addison-Wesley, 1999. This book will NOT be used for assignments etc: Any good book covering UML can be helpful.
- Component Oriented Software Engineering, Ali Dogru, The Atlas Publications, Dallas, Texas, 2006, ISBN: 0-9778129-0-1. http://www.ceng.metu.edu.tr/~dogru/b.pdf http://theatlas.org/index.php?option=com_content&task=view&id=108

Also class notes may be distributed

Reference Books:

- Pressman, R. S., *Software Engineering*, McGraw Hill, 3rd or later editions.
- Clemens Szyperski, *Component Software: Beyond Object-Oriented Programming*, Addison-Wesley, 2nd Edition

Presentations:

- http://www.ceng.metu.edu.tr/~dogru

Course Outline:

Introduction	1 week
Project Requirements	1 week
Methodologies	1 week
Object Orientation	1 week
UML, UML 2.0	4 weeks
Related Techniques: MDA, OCL	2 weeks
Architecture, Components, modeling	2 weeks
Variability, Feature Modeling	1
Development Processes	1 week

Grading:

Midterm-1:	20 %	November 27 Friday 2020 – class hour if possible (Coverage: material discussed in the class)
Midterm-2:	20 %	December 18, Friday, 2020 – class hour if possible (Coverage: material discussed in the class)
Projects	30 %	
Class participation	10 %	Attendance and discussions
Final:	20 %	Coverage: material discussed in the class, from the beginning