Course Title		Code	Semester	T+P	Credit	ECTS
Software		CSE 311	Fall	3+0	3	6
Prerequisites		CSE 102				
Language of Instruction		English				
Course Type (Required /Elective)		Required				
Instructor		**Prof. Dr. Ahmet Bulut** ahmet.bulut@acibadem.edu.tr				
Assistants		– ChatGPT –				

Goals	This course covers the fundamental principles and concepts of software development, including software development (SD) processes, agile practices & scrum, test driven development, unit testing, integration testing, version control systems, continuous integration and continuous deployment.
Learning Outcomes	1. Learn design choices & philosophy behind widely popular SD practices. 2. Learn agile-SD methodology & best practices & the soft skill-set. 3. Apply the skill-set on a team project. 4. Write a term report detailing your experience and exposure.

	Assessment Components	Weight
Assessment Criteria	Midterm I	25%
	Midterm II	25%
	Attendance & Participation	10%
	Project (Presentations, Demo) – **Final**	40%
	Total	100%

WEEKLY TOPICS		
Week	**Lecture**	**Instructor Notes**
1.	Introduction	*23 Sep.*
2.	Software Dev Processes: Waterfall vs. Agile	*30 Sep.*
3.	Agile Practices	*7 Oct.*
4.	User Stories, StoryBoard, Sprint, Estimation	*14 Oct.* **Project: Kickoff !**
5.	Minimum Viable Product (MVP), Scrum	*21 Oct.*
6.	Autonomy, Teams, Communication	*28 Oct.*
7.	Version Control Systems (Git)	*4 Nov.*
8.	**Midterm I**	*11 Nov.* in class

9.	**Project: Demo MVP**	*18 Nov.* **Project: Presentation !**
10.	Version Control Systems (Git, GitHub)	*25 Nov.*
11.	Unit Testing, Types of Testing, Test Driven Development (TDD)	*2 Dec.*
12.	Impromptu Readings on Getting Real	*9 Dec.*
13.	Continuous Integration (CI) Continuous Delivery (CD)	*16 Dec.*
14.	**Midterm II**	*23 Dec.* in class
15.	**Project: Demo Final Product**	*29-30 Dec.* **Project: Demo, Hardcopy Report !**

REFERENCES	
Main Textbook	Scrum: The Art of Doing Twice the Work in Half the Time by Jeff Sutherland, J.J. Sutherland. Crown Business, 2014. Software Engineering at Google: Lessons Learned from Programming Over Time by Titus Winters, Tom Manshreck, Hyrum Wright. O'Reilly Media, 2020. Agile Software Development with Scrum by Ken Schwaber, Mike Beedle. Prentice Hall PTR, 2001.
Supplementary Reading	Getting Real: smarter, faster, easier way to build a successful web application https://basecamp.com/gettingreal Django Documentation: The web framework for perfectionists with deadlines https://docs.djangoproject.com/

ECTS / WORKING HOUR TABLE			
Activities	**Number of Weeks**	**Duration (Hour)**	**Working Hours**
Duration of the Course	15	3	45
Midterm	2	10	20
Project	1	120	120
		Total Hours	185
		Total Hours / 30	~6
		ECTS Credit	6