Course Number	CS 305	Course Title	Software Development Practices
Semester Hours	3	Course Coordinator FA20	Abdullah Aydeger
Catalog Description FA21	Agile software development approach, tools, methodologies, and technical writing are addressed. Understanding of object-oriented design principles, implementation, and testing to meet customer requirements are enhanced through agile practices using modern development tools. A team project is an integral part of this course.		

Textbooks
SP21

Richards, M. & Ford, N. (2020). *Fundamentals of Software Architecture: An Engineering Approach*, O'Reilly Media. ISBN: 9781492043454.

References

Course Learning Outcomes

- To gain skills and appreciation of the functionality provided by a modern IDE.

- To develop skills in writing clean clear code designed to meet a client's requirements.

- To be able to coordinate with a team face-to-face as well as through a project repository.

- To gain experience and appreciation for software development process, practices & tools.

Assessment of the Contribution to Student Outcomes

Outcome →	1	2	3	4	5	6
Assessed →	X	X	X		X	X

Prerequisites by Topic

CS 220 with a grade of *C* or better

Major Topics Covered in the Course

1. Introduction and Perspectives on Software Development {3 classes}

2. Communication, Collaboration and Teamwork {3 classes}

3. The Software Development Environment- working with the IDE {3 classes}

4. Refactoring and Communicating through code {8 classes}

5. Project Repositories to Support Teamwork {4 classes}

6. Testing and Automation {6 classes}

7. Object-Oriented Principles, Patterns and Design Notations {7 classes}

8. Estimating, Planning and Tracking progress {6 classes}

Latest Revision: Fall 2021