SENG 204 – SOFTWARE ENGINEERING

Course Code	Course Name		Semester	
SENG 204	Software Engineering		Fall ☐ Spring ☒ Summer ☐	
Course Hours			**Credit**	**ECTS**
Course Hours	**Application**	**Laboratory**	3	6
3	0	0		

Course Details	
Section	Computer Engineering
Course Language	English
Course Level	License ☒ Master's ☐
Type of Education	Formal Education ☒ Remote ☐ Hybrid ☒
Course Type	Compulsory ☒ Elective ☐
Course Objective	To teach students; Software Processes, Requirements Engineering, System Modeling, Architectural Design, Design and Implementation, Software Testing, Software Evolution, Agile Software Development testing and review processes.
Course Content	Software Processes, Requirements Engineering, Systems Modeling, Architectural Design, Design and Implementation, Software Testing, Software Evolution, Agile Software Development, Testing and Review.
Course Methods and Techniques	Lecture ☒ Question - Answer ☒ Presentation ☐ Discussion ☒
Prerequisites	
Work placement(s)	

Course Resources

- Software Engineering 10th Edition Ian Sommerville
- Software Engineering: A Practitioner's Approach, 9th Edition, Roger S. Pressman, Bruce R. Maxim, 2020
- Software Engineering Body of Knowledge Guide SWEBOK® Version 3.0

Course Structure				
Mathematics and Basic Sciences	☐		Education Sciences	☐
Engineering Sciences	☐		Science	☐
Engineering Design	☒		Health	☐
Social Sciences	☐		Profession	☐

Weekly Schedule		
No	**Topics**	**Documents/Notes**
1	Introduction to Software Engineering	Software Engineering 10th Edition - Bölüm 1
2	Software processes	Software Engineering 10th Edition - Bölüm 2
3	Agile software development	Software Engineering 10th Edition - Bölüm 3
4	Requirements engineering	Software Engineering 10th Edition - Bölüm 4
5	System modeling	Software Engineering 10th Edition - Bölüm 5
6	Architectural design	Software Engineering 10th Edition - Bölüm 6
7	Design and implementation	Software Engineering 10th Edition - Bölüm 7
8	Midterm Exam	
9	Software testing	Software Engineering 10th Edition - Bölüm 8
10	Software evolution	Software Engineering 10th Edition - Bölüm 9
11	Reliable systems	Software Engineering 10th Edition - Bölüm 10
12	Reliability engineering	Software Engineering 10th Edition - Bölüm 11
13	Safety engineering	Software Engineering 10th Edition - Bölüm 12
14	Resilience engineering	Software Engineering 10th Edition - Bölüm 13
15	Project presentation	
16	General Exam	

Evaluation Methods and Criteria		
Semester Studies	**Quantity**	**Percentage**
Attendance		
Lab		
Practice		
Fieldwork		
Course-Specific Workplace Training		
Quizzes/Studio/Critical		
Homework		
Presentation		
Projects	1	20
Report		
Seminar		
Midterm Exams	1	30
Final Exam	1	50
	Total	**%100**
Contribution of Mid-Term Studies to Success Grade		
Contribution of End-of-Semester Studies to Success Grade		
	Total	**%100**

ECTS/Workload Table			
Activities	**Sayı**	**Süresi (Saat)**	**Toplam İş Yükü**
Class Hours	3		
Lab			
Practice			
Fieldwork			
Course-Specific Workplace Training			
Out-of-Class Study Time			
Quizzes/Studio/Critical			
Homework			
Presentation / Seminar Preparation			
Projects			
Report			
Midterm Exam and Midterm Exam Preparation			
General Exam and General Exam Preparation			
Total Workload			
Total Workload / 25			
ECTS Credit			

Course Learning Outcomes	
No	**Outcome**
L1	Be familiar with software principles.
L2	Be able to analyze requirements and create a project plan.
L3	Implementing software processes.
L4	
L5	

Contribution of Course Learning Outcomes to Program Learning Outcomes																
Contribution Level: 1: Very Low, 2: Low, 3: Medium, 4: High, 5: Very High																
	P1	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**	**P10**	**P11**	**P12**	**P13**	**P14**	**P15**	**Total**
L1																
L2																
L3																
L4																
L5																
															Total	