

Doküman No	MF.FR.003
Revizyon Tarihi	13.11.2024
Revizyon No	01
Sayfa No	1/6

	WEX 427 – Workplace Experience II				
Course Code	Course Code Course Name Semester			ester	
WEX 427	Work	orkplace Experience II		Fall ⊠ Spring □ Summer □	
	•	Hours		Credit	ECTS
Theory		Practice	Lab	2	2
0		6	0	3	3

Course Details	
Department	SOFTWARE ENGINEERING
Course Language	English
Course Level	Undergraduate ☑ Graduate □
Mode of Delivery	Face to Face ⊠ Online □ Hybrid □
Course Type	Compulsory ⊠ Elective □
Lecturer (s)	Departmental Academic Advisor & Workplace Mentor
Course Objectives	The primary objective of this capstone course is for students to integrate and synthesize the comprehensive engineering knowledge acquired throughout their undergraduate studies in a real-world professional setting. The course aims to transition students from an academic to a professional mindset by having them take significant ownership of engineering tasks. Key objectives include: contributing meaningfully to complex, multi-stage engineering projects; mastering the use of advanced industry-specific tools and methodologies; demonstrating autonomy, project management skills, and leadership potential within a team environment; and producing professional-grade documentation and presentations that reflect their technical and professional maturation in preparation for their engineering careers.
Course Content	This course requires students to spend two full days per week at a partner company, fully integrated into an engineering team. The content involves contributing to a significant, ongoing engineering project, moving beyond small-scale tasks to engage in problem definition, analysis, design, implementation, and validation. Students will be responsible for managing their project components, collaborating with team members and other departments, adhering to company standards and project timelines, preparing detailed technical documentation, and delivering a formal midterm and final presentation on their project contributions, challenges, and outcomes to an audience of academic and company personnel.
Course Method/ Techniques	Lecture □ Question & Answer □ Presentation □ Discussion □
Prerequisites/	Must be a 4th-year student and have successfully completed WAP 227



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Corequisites	(Workplace Application I) and all third-year courses.
Work Placement(s)	The placement continues for 16 weeks throughout the semester, requiring 1 full day (8 hours) per week.
Textbook/References/Mat	erials
Workplace Educatio	n Guideline
Company-specific p	roject documentation and technical standards
Relevant engineerin	g handbooks, software manuals, and industry codes

Course Category			
Mathematics and Basic Sciences		Education	
Engineering	×	Science	
Engineering Design	×	Health	
Social Sciences		Profession	\boxtimes

eekly Sch		
No	Topics	Materials/Notes
Weekly		
Schedule		
No	Topics	Materials/Notes
1	Advanced Orientation, Project Assignment, and Definition of Project Scope and Objectives with Mentor.	Workplace Education Guideline
2	Requirement Analysis and Detailed Project Planning; Identifying Key Deliverables and Timelines.	Project Plan Draft
3	Commencing Project Work: In-depth Research, Data Collection, and Application of Advanced Engineering Principles.	Weekly Progress Report
4	Executing Key Project Tasks; Applying Advanced Engineering Tools and Software for Analysis and Design.	Weekly Progress Report
5	Collaboration with Team Members on Integrated Project Components; Attending Project Meetings.	Weekly Progress Report
6	Problem-Solving Complex Technical Challenges; Iterative Design and	Weekly Progress Report



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	Duatativaire a (Mandalia a	
	Prototyping/Modeling.	
7	Mid-term Project Progress Review with	Weekly Progress Report
	Mentor; Preparation for Mid-term	
	Presentation.	
8	Mid-term Project Report and Presentation	Mid-term Report & Presentation
	to Academic Advisor and Mentor.	
9	Implementing Feedback from Mid-term	Weekly Progress Report
	Review; Continuing with Advanced Project	
	Tasks.	
10	Focusing on Testing, Validation, and Quality	Weekly Progress Report
	Assurance of Project Work.	
11	Analyzing Project Outcomes and Comparing	Weekly Progress Report
	them against Initial Objectives and	
	Requirements.	
12	Taking on More Independent	Weekly Progress Report
	Responsibilities and Contributing to Team	
	Decision-Making.	
13	Finalizing all Technical Aspects of the	Weekly Progress Report
	Project; Documenting Final Designs and	
	Results.	
14	Compiling the Comprehensive Final Report;	Final Report Draft
	Structuring the Narrative and Technical	
	Data.	

Assessment Methods and Criteria		
In-term studies	Quantity	Percentage
Attendance	16	30
Lab	-	-
Practice	-	-
Fieldwork	-	-
Course-specific internship	-	-
Quiz/Studio/Criticize	-	-
Homework	-	-
Presentation / Seminar	-	-
Project	-	-
Report	16	70
Seminar	-	-
Midterm Exam	-	-
Final Exam	-	-
	Total	100%
Contribution of Midterm Studies to Success Grade	1	40
Contribution of End of Semester Studies	1	60



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to Success Grade		
	Total	100%

ECTS Allocated Based on Student Workload								
Activities	Quantity	Duration (Hrs)	Total Workload					
Course Hours	-	-	-					
Lab	-	-	-					
Practice	-	-	-					
Fieldwork	-	-	-					
Course-specific Work Placement	-	-	-					
Out-of-class study time	-	-	-					
Quiz/Studio/Criticize	-	-	-					
Homework	-	-	-					
Presentation / Seminar	-	-	-					
Project	-	-	-					
Report	16	4	64					
Midterm Exam and Preparation for Midterm	-	-	-					
Final Exam and Preparation for Final Exam	-	-	-					
Total Workload	64							
Total Workload / 25	2.56							
ECTS Credit	3							

Course Le	arning Outcomes
No	Outcome
L1	Integrates into the company's organizational and professional culture and proposes
	improvements to project workflows based on observation and analysis.
L2	Synthesizes advanced engineering principles and theories to design, develop, and manage
	complex engineering project components from conception to completion.
L3	Masters and independently applies modern engineering tools, software, and analytical
	techniques, justifying their selection for specific project requirements.
L4	Leads and collaborates effectively within diverse engineering teams, demonstrating
	initiative, managing responsibilities, and upholding professional ethics.
L5	Produces professional-grade technical documentation and persuasively presents complex
	project findings to both technical and non-technical audiences.
L6	Critically evaluates and ensures adherence to occupational health, safety regulations, and
	quality assurance standards throughout the project lifecycle.

Contribution of Course Learning Outcomes to Program Competencies/Outcomes										
Contribution Level: 1: Very Slight, 2: Slight, 3: Moderate, 4: Significant, 5: Very Significant										
P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 Total										



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L1	4	4	3	4	4	5	4	4	5	5	4			50
L2	5	5	5	4	5	4	4	4	4	4	3			47
L3	5	5	5	4	5	4	5	3	4	4	3			47
L4	5	4	4	5	5	5	4	5	5	5	3			50
L5	4	4	4	5	4	4	4	5	5	5	4			48
L6	4	4	4	5	5	5	5	5	5	4	5			51
Total										293				

- i. The ability to synthesize and apply advanced engineering knowledge with practical applications; to analyze, critique, and contribute to the operational, organizational, and cultural dynamics of a professional workplace to develop innovative solutions.
- ii. The ability to independently identify, formulate, and solve complex engineering problems encountered in the workplace; the ability to design and conduct experiments, as well as to analyze and interpret data to improve business outcomes.
- iii. The ability to manage project timelines, resources, and deliverables in accordance with defined requirements; demonstrating autonomy, accountability, and a proactive approach to leading assigned project components.
- iv. The ability to critically evaluate, select, and master modern engineering tools, software, and technologies specific to the industry; the ability to justify tool selection and manage technical data flows within a professional context.
- v. The ability to drive workplace processes, gather critical technical information, analyze business outcomes, and provide constructive feedback to supervisors and colleagues to improve team and organizational performance.
- vi. The ability to lead and function effectively on multi-disciplinary teams, both intra-departmental and cross-departmental; the ability to manage individual and team responsibilities with a high degree of independence.
- vii. The ability to communicate complex technical information persuasively and effectively, both orally and in writing, to diverse audiences; proficiency in negotiating technical requirements, leading project meetings, and authoring comprehensive engineering reports.
- viii. To demonstrate a commitment to continuous professional development and lifelong learning; the ability to independently identify knowledge gaps, seek out new learning opportunities, and strategically adapt to evolving industry trends.



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- ix. The ability to uphold and advocate for the highest standards of professional and ethical principles and corporate policies; demonstrating exemplary professional conduct and taking responsibility for engineering decisions.
- x. The ability to apply project management principles and contribute to strategic business objectives such as quality assurance, innovation, and efficiency; to demonstrate a sophisticated understanding of the competitive commercial environment.
- xi. The ability to analyze and assess the broader impact of engineering solutions on health, safety, and the environment; demonstrating a deep awareness of corporate social responsibility and sustainable engineering practices.