

## DEPARTMENT OF ENERGY SCIENCE AND TECHNOLOGIES **COURSE SYLLABUS**

Course Details									
Code				Academic Year			Semester		
PRK400				4			8		
Title				Т	Α	L	ECTS		
Internship Seminar					0	0	5		
Language	German	German							
Level	Undergraduate	Undergraduate X Graduate Postgraduate							
Department / Program	Energy Science and	Energy Science and Technology							
Forms of Teaching and Learning	Face-to-face	Face-to-face							
Course Type	Compulsory		E	lective	x				
Objectives	To gain knowledge a	To gain knowledge and experience in the application fields of Energy Science.					ence.		
Content	Selected study topic as Product Develop Development, are le Production Planning Planning, Design an Management are al	Selected study topics from the application areas of Energy Science are covered. Topics such as Product Development / R&D, as well as Material and Manufacturing Process Development, are learned. Areas such as Automation in Energy Systems, Manufacturing / Production Planning, Assembly, Maintenance and Repair are discussed. Systems like Project Planning, Design and Analysis, Testing and Verification, and Quality Control and Quality Management are also covered.							
Prerequisites	-	-							
Coordinator	Assist. Prof. Dr. Osm	Assist. Prof. Dr. Osman Sinan SÜSLÜ							
Lecturer(s)	Assist. Prof. Dr. Osm	Assist. Prof. Dr. Osman Sinan SÜSLÜ							
Assistant(s)									
Work Placement	None	None							
Recommended or Required Reading									
Books / Lecture Notes	Juliane Braenzel, Dirk En Berater und Manager , ?	uliane Braenzel, Dirk Engelmann, Olaf SchulzeEnergiemanagement: Praxisbuch für Fachkräfte, erater und Manager , ? Springer Vieweg; 2., überarb. Aufl. 2019							
Other Sources	Lecture slides	ecture slides							
Additional Course Material									
Documents	-								
Assignments	-								
Exams	-								
Course Composition									



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Mathematics un Sciences	d Basic			%	
Engineering			%		
Engineering Des	ign		%		
Social Sciences			%		
Educational Scie	nces			%	
Natural Sciences	5		%		
Health Sciences			%		
Expert Knowled	ge		%		
Assessment					
Activity	/		Count	Percentage (%)	
Midterm Exam					
Quiz					
Assignments					
Attendance					
Recitations					
Projects			100		
Final Exam					
			Total	100	
ECTS Points an	d Work Lo	ad			
ECTS Points an Activity	d Work Lo /	ad Count	Duration	Work Load (Hours)	
ECTS Points an Activity Lectures	d Work Lo /	ad Count 14	Duration 2	Work Load (Hours) 28	
ECTS Points an Activity Lectures Self-Study	d Work Lo /	ad Count 14 8	Duration 2 12	Work Load (Hours) 28 96	
ECTS Points an Activity Lectures Self-Study Assignments	d Work Lo /	ad Count 14 8	Duration 2 12	Work Load (Hours) 28 96	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation	d Work Lo / eminar	ad Count 14 8	Duration 2 12	Work Load (Hours) 28 96	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation Midterm Exam	d Work Lo / eminar	ad Count 14 8	Duration 2 12	Work Load (Hours) 28 96	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation Midterm Exam Recitations	d Work Lo / eminar	ad Count 14 8	Duration 2 12	Work Load (Hours) 28 96	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation Midterm Exam Recitations Laboratory	d Work Lo / eminar	ad Count 14 8	Duration         2         12	Work Load (Hours) 28 96	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation Midterm Exam Recitations Laboratory Projects	d Work Lo / eminar	ad Count 14 8 	Duration           2           12	Work Load (Hours) 28 96 96 30	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation Midterm Exam Recitations Laboratory Projects Final Exam	d Work Lo / eminar	ad Count 14 8 	Duration 2 12 12	Work Load (Hours) 28 96 	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation Midterm Exam Recitations Laboratory Projects Final Exam	d Work Lo	ad Count 14 8	Duration         2         12	Work Load (Hours) 28 96 30 30	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation Midterm Exam Recitations Laboratory Projects Final Exam	d Work Lo	ad Count 14 8 	Duration 2 12 12 12 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Work Load (Hours) 28 96 30 30 154 5,13	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation Midterm Exam Recitations Laboratory Projects Final Exam	d Work Lo ( eminar	ad Count 14 8 	Duration 2 12 12 12 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Work Load (Hours) 28 96 30 30 154 5,13	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation Midterm Exam Recitations Laboratory Projects Final Exam	d Work Lo ( eminar eminar Gain expe	ad Count 14 8 1 1 1 1 1 1 1 1 1 1 1 1 1	Duration   2   130   14   14   15   16   17   18   19   19   10   10   10   11   12   130   14   15   16   17   18   19   19   10   10   10   11   11   12   14   15   16   17   18   19   19   10   10   10   10   11   12   130   14   15   16   17   18   18   19   10   10   10   10   10   10   10   10   10   10<	Work Load (Hours) 28 96 30 30 154 5,13	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation Midterm Exam Recitations Laboratory Projects Final Exam Learning Outco 1 2	d Work Lo ( eminar eminar Gain expe	ad Count 14 8 1 1 1 crience in the application rrience in workflows and	Duration         2         12         12         12         13         14         15         16         17         18         19         10         112         12         12         12         12         130         130         10         10         112         130         10         10         112 <th>Work Load (Hours) 28 96 30 30 154 5,13</th>	Work Load (Hours) 28 96 30 30 154 5,13	
ECTS Points an Activity Lectures Self-Study Assignments Presentation / S Preparation Midterm Exam Recitations Laboratory Projects Final Exam Learning Outco 1 2 3	d Work Lo eminar eminar Gain expe Gain expe Gain expe	erience in the application erience in workflows and erience in planning and s	Duration         2         12         12         12         13         14         15         16         17         18         19         10         10         112         12         12         130         14         15         16         17         18         19         10         10         112	Work Load (Hours) 28 96 30 30 154 5,13	



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4	Take resp	onsibility in	the work en	vironment						
5	Gain expe	rience in te	amwork							
6	Gain experience in occupational safety									
Weekly Content										
1	Introducti	ion								
2	Product D	evelopment	t / R&D							
3	Material and Manufacturing Process Development									
4	Automation									
5	Manufacturing / Production Planning									
6	Assembly									
7	Maintenance-Repair									
8	Midterm Week									
9	Project Planning									
10	Design and Analysis									
11	Testing and Verification									
12	Quality Control and Quality Management									
13	Discussion									
14	Discussion									
15	Discussion									
16	Finals Week									
Contribution o	f Learning	Outcomes	to Program	n Objectiv	ves (1-5)					
	P1	P2	P3	P4	P5	P6	P7	P8	P9	
1	4	4	4	5	4	3	3	4	4	
2	4	4	4	4	4	3	3	4	4	
3	5	4	4	3	4	3	3	5	4	
4	4	4	4	5	4	3	3	3	4	
5	5	4	4	4	4	3	3	4	4	
6	5	5 4 4 4 3 3 3 4 4								
Contribution Lev	on Level 1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High									
https://obs.tau.edu.tr/oibs/bologna/progLearnOutcomes.aspx?lang=EN&curSunit=5706										
Compiled by:	y: Res. Assist. Anıl Can DUMAN									
Date of Compila	ilation: 24.01.2025									