

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
COURSE INFORMATION

Course Details				
Code	Academic Year			Semester
PHY 103	1			1
Title	T	A	L	ECTS
Modern Physics	3	1	1	6
Language	German			
Level	Undergraduate	X	Graduate	Postgraduate
Department / Program	Electrical and Electronics Engineering			
Forms of Teaching and Learning	Face to face			
Course Type	Compulsory	X	Elective	
Objectives	To present the students fundamentals of modern physics.			
Content	Oscillations, waves, interference and diffraction, special theory of relativity, quantum mechanics			
Prerequisites	-			
Coordinator	-			
Lecturer(s)	Asst. Prof. A. Kazım Çamlıbel			
Assistant(s)	Salih Nişancı, Cihan Katar			
Work Placement	-			
Recommended or Required Reading				
Books / Lecture Notes	- Physik: Lehr- und Übungsbuch, Douglas C. Giancoli, 2019 - Halliday Physik, David Halliday, Robert Resnick, Jearl Walker, 2017			
Other Sources	-			
Additional Course Material				
Documents	-			
Assignments	5 laboratory reports			
Exams	1 midterm exam, 1 final exam			
Course Composition				
Mathematics und Basic Sciences				50%
Engineering				10%
Engineering Design				%
Social Sciences				%
Educational Sciences				%
Natural Sciences				40%

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Health Sciences			%
Expert Knowledge			%
Assessment			
Activity	Count		Percentage (%)
Midterm Exam	1		30
Quiz			
Assignments	5		20
Attendance			
Recitations			
Projects			
Final Exam	1		50
Total			100
ECTS Points and Work Load			
Activity	Count	Duration	Work Load (Hours)
Lectures	14	3	42
Self-Study	14	4	56
Assignments	5	4	20
Presentation / Seminar Preparation			
Midterm Exam	1	2	2
Recitations	14	1	14
Laboratory	5	6	30
Projects			
Final Exam	1	2	2
Total Work Load			166
ECTS Points (Total Work Load / Hour)			6
Learning Outcomes			
1	Students learn the main concepts in modern physics.		
2	Students learn the main laws in modern physics.		
3	Students can solve complicated problems.		
4	Students can conduct fundamental experiments of modern physics and report their results.		
5			
6			
7			
8			

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Contribution Level	1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High
Compiled by:	Asst. Prof. A. Kazım Çamlıbel
Date of Compilation	24.05.2021