

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
COE201	COMPUTER PROGRAMMING AND APPLICATIONS	2.00	2.00	0.00	4.00	4.00
Course Detail						
Course Language	: English					
Qualification Degree	: Bachelor					
Course Type	: Compulsory					
Preconditions	: Not					
Objectives of the Course	: To provide information on large number of application possibilities in different kinds of applications in scientific computing, data handling and visualization.					
Course Contents	: MATLAB					
Recommended or Required Reading	: MATLAB: A Practical Introduction to Programming and Problem Solving, Stormy Attaway, Elsevier. H. Moore, MATLAB for Engineers, 4th ed., Prentice Hall, ISBN-13: 978-0133485974					
Planned Learning Activities and Teaching Methods	: Lecture notes, applications, project homework, exams					
Recommended Optional Programme Components	: Numerical methods					
Instructors	: Assoc. Prof. Dr. Vahide Bulut					
Instructor's Assistants	: None					
Presentation Of Course	: Face to face					
En Son Güncelleme Tarihi:	: 9/27/2023 4:00:14 PM					

Course Outcomes

Upon the completion of this course a student :

- 1 Understanding the basic terminology used in the Matlab programming language
- 2 To be able to write, compile and debug programs in Matlab
- 3 To be able to express the mathematical calculations needed in engineering problems using the basic structures of programming.
- 4 To develop applications with selection statemnts and loops
- 5 Breaking down a problem into simple parts

Preconditions

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Weekly Contents						
	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods	Course Learning Outcomes
1.Week	*Introduction *Overview, basic introduction	*Matlab installation			*Oral presentation, digital presentation, question and answer	
2.Week	*Introduction to MATLAB *Matrix Operations, Plotting and visualization	*Introduction to MATLAB			*Oral presentation, digital presentation, question and answer	
3.Week	*Vectors and Matrices I *Designing algorithms	*Vectors and Matrices I			*Oral presentation, digital presentation, question and answer	
4.Week	*Vectors and Matrices II *Control Flow	*Vectors and Matrices II			*Oral presentation, digital presentation, question and answer	
5.Week	*Introduction to MATLAB Programming I *Control Flow	*Introduction to MATLAB Programming I			*Oral presentation, digital presentation, question and answer	
6.Week	*Introduction to MATLAB Programming II *Programming: Function evaluation, program control	*Introduction to MATLAB Programming II			*Oral presentation, digital presentation, question and answer	
7.Week	*Selection Statements *Midterm	*Selection Statements			*Oral presentation, digital presentation, question and answer	
8.Week	*Numerical analysis *Midterm Exam	*Numerical Analysis			*Oral presentation, digital presentation, question and answer	
9.Week	*Numerical analysis *Loop Statements and Vectorizing Codes I	*Loop Statements and Vectorizing Codes I			*Oral presentation, digital presentation, question and answer	
10.Week	*Numerical analysis *Loop Statements and Vectorizing Codes II	*Loop Statements and Vectorizing Codes II			*Oral presentation, digital presentation, question and answer	
11.Week	*MATLAB Programs I	*Matlab Programs I			*Oral presentation, digital presentation, question and answer	
12.Week	*Matlab programs II *2-D and 3D graphics	*Matlab programs II			*Oral presentation, digital presentation, question and answer	
13.Week	*Text Manipulation I *2-D and 3D graphics	*Text manipulation I			*Oral presentation, digital presentation, question and answer	
14.Week	*Text manipulation II *2-D and 3D graphics	*Text manipulation II			*Oral presentation, digital presentation, question and answer	

Assesment Methods %
1 Final : 50.000
2 Mdterms : 35.000
3 Project : 15.000

ECTS Workload			
Activities	Count	Time(Hour)	Sum of Workload
Vize / Midterms	1	3.00	3.00
Final / Final	1	3.00	3.00
Ara Sınav Hazırlık / Preparation for midterm	1	50.00	50.00
Final Sınavı Hazırlık / Preparation for final	1	50.00	50.00
Derse Katılım / Attending lectures	14	1.00	14.00
Ev Ödevi / Homework	1	28.00	28.00
Total :			148.00
Sum of Workload / 30 (Hour) :			5
ECTS :			4.00

Program And OutcomeRelation

	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11
L.O. 1	0	0	0	5	0	0	0	0	0	0	0
L.O. 2	0	0	0	5	0	0	0	0	0	0	0
L.O. 3	0	0	0	5	0	0	0	0	0	0	0
L.O. 4	0	0	0	5	0	0	0	0	0	0	0
L.O. 5	0	0	0	5	0	0	0	0	0	0	0