

ADVANCED PROGRAMMING

1	Course Title:	ADVANCED PROGRAMMING
2	Course Code:	EEM4115
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	7
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. FAHRİ VATANSEVER
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Adres: Elektrik-Elektronik Mühendisliği bölümü, No:311 Tel: (224) 294 09 05 Web: http://home.uludag.edu.tr/~fahriv E-posta: fahriv@uludag.edu.tr
17	Website:	http://home.uludag.edu.tr/~fahriv
18	Objective of the Course:	To gain ability to develop special software for application areas with using advanced programming technique after becoming expert on certain high-level programming language (Visual Basic, Delphi, Java or Python)
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	To gain ability developing advanced software
	2	To gain ability to develop select and use modern techniques and equipment necessary for engineering applications
	3	To gain ability to use information technology in efficient way
	4	To gain ability to simulate with developing advanced software for investigating engineering problems
	5	To gain ability to collect data, analysis result and interpret results with developing advanced software for investigating engineering problems
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	High-level programming, object oriented programming, programming language editor	

2	Characters, operators, operations, data types and Casting among these types in programming language	
3	Decision and loop structures commands and applications	
4	Numeric, alphanumeric, graphical, system commands and applications	
5	Forms, properties and events. Sample applications	
6	Standard components (objects), properties and events, sample applications	
7	System components, properties, events and applications	
8	Midterm Exam + General review	
9	Multimedia components, properties, events and applications	
10	Dialog box, dialogs components, properties, events and applications	
11	Operating system, Office applications, report components, properties, events and applications	
12	Network components, properties events and applications	
13	Database components, properties, events and applications	
14	Electronic application programs	

22	Textbooks, References and/or Other Materials:	<p>1. Fahri Vatansever, "Algoritma Geliştirme ve Programlamaya Giriş", 14. baskı, Seçkin Yayıncılık, Ankara, 2020.</p> <p>2. Lischner, R., Delphi in a Nutshell (In a Nutshell (O'Reilly)), 2000.</p> <p>3. Pacheco, X., Delphi for .NET Developer's Guide, SAMS, 2004.</p> <p>4. Kerman, M.C., Programming and Problem Solving with Delphi, 2001.</p> <p>5. Barrow, J., Introducing Delphi Programming: Theory through Practice, 2005.</p>
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23	Assesment	
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TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	2	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		

24	ECTS / WORK LOAD TABLE	
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Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	3.00	42.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	16.00	16.00
Others	0	0.00	0.00
Final Exams	1	20.00	20.00
Total Work Load			120.00
Total work load/ 30 hr			4.00
ECTS Credit of the Course			4.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			