	COMMUNICATIO	N AN	D NAVIGATION SYSTEMS							
1	Course Title:	COMMU	INICATION AND NAVIGATION SYSTEMS							
2	Course Code:	SHUZ20	3							
3	Type of Course:	Compuls	sory							
4	Level of Course:	Short Cy	cle							
5	Year of Study:	2								
6	Semester:	3								
7	ECTS Credits Allocated:	3.00								
8	Theoretical (hour/week):	1.00								
9	Practice (hour/week):	2.00								
10	Laboratory (hour/week):	0								
11	Prerequisites:									
12	Language:	Turkish								
13	Mode of Delivery:	Face to	face							
14	Course Coordinator:	Öğr.Gör	. SILA AVGAN							
15	Course Lecturers:									
16	Contact information of the Course Coordinator:	silaavga	n@uludag.edu.tr							
17	Website:									
18	Objective of the Course:	Different navigation systems used in the study and use of an air transport aircraft to examine the principles								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	Explain in which segment of the flight and in what purpose the air navigation systems are used							
		2	Explain the necessity of the radio waves for data transmission							
		3	Explain the working principles of the ground based air navigation systems and their operations							
		4	Explain the working principles of aircraft based air navigation systems and their operations							
		5	Tell the working principles and the usage in air navigation of satellite based air navigation systems.							
		6								
		7								
		8								
		9								
		10								
21	Course Content:	-								
10/	Course Content:									
	Theoretical		Practice							
1	General concepts of radio wave									
2	VDF, ADF systems									
3	VDF, ADF systems									

4		R, DM tems		ORTAG	C, ILS	, MLS	, RAE	DAR											
5		/OR, DME, VORTAC, ILS, MLS, RADAR Siystems																	
6	GPV	VS, II			INSS,	TCAS	, FM	S, R-											
7	Navi	igatic	n met	thods															
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9	acco	bunt,		tion es		een tw ion and													
10	acco	Map types, Distance between two points account, Direction estimation and map reading on the map																	
11		Influence of the wind on the flight path and various speeds used in aviation																	
12		Influence of the wind on the flight path and various speeds used in aviation																	
13 Influence of the wind on the flight path and Activites									Number				ation ((hour)	Total Work Load (hour)				
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ECTS	Credi	t of th	ne Co	urse					-							3.00			
	Contribution of Final Exam to Success Grade									60.00									
Total 1								1	00.00										
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24	EC	TS /	WO	RK L	OAD	TAB	LE												
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	l	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ	8 PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16		
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ÖK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ÖK3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ÖK4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
LO: Learning Objectives PQ: Program Qualifications																	
Contrib ution Level:	n j				2 low		3	3 Medium			4 High			5 Very High			