	PARTIAL DIFFER	ANTIA	AL EQUATIONS ELECTIVE							
1	Course Title:	PARTIAL	DIFFERANTIAL EQUATIONS ELECTIVE							
2	Course Code:	MAT301	7							
3	Type of Course:	Compuls	ory							
4	Level of Course:	First Cyc	le							
5	Year of Study:	3								
6	Semester:	5								
7	ECTS Credits Allocated:	6.00								
8	Theoretical (hour/week):	2.00								
9	Practice (hour/week):	2.00								
10	Laboratory (hour/week):	0								
11	Prerequisites:	None								
12	Language:	Turkish								
13	Mode of Delivery:	Face to f	ace							
14	Course Coordinator:	Prof. Dr.	SEZAYİ HIZLIYEL							
15	Course Lecturers:									
16	Contact information of the Course Coordinator:	hizliyel@ Tel:(0224 Uludağ Ü Yerleşke	@uludag.edu.tr 24)2941765 j Ünv. Fen Ed. Fakültesi Matematik Bölümü Görükle kesi 16059 Bursa-Türkiye							
17	Website:									
18	Objective of the Course:	The aim equation	of the course is to give systematically partial diffrential s that arise in many areas of science and engineering							
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	Understands the importance of partial differential equations occurring in science and engineering.							
		2	Classification to partial differential equations							
		3	Solves the first-order partial differential equations							
		4	To obtain a exact integral of a first-order partial differential equation							
		5	solves the second and higher order homogeneous linear partial differential equations with constant coefficients							
		6	Classifies second-order equations							
		7								
		8								
		9								
		10								
21	Course Content:									
	Course Content:									
Week	Theoretical		Practice							
1	Region, surfaces and curves in three dimensional space	}-	two surfaces							
2	First order and first degree systems with the systems with the system s	with	Obtain the solutions							
3	Curves formed by the integral curves given surface	of a	Example solutions							

4	Pfaff di variable	ferenti	al equ	ation	with tw	o and	three	Th	The geometrical meaning of Integrability									
5	Pfaff dif obtain s	erentia olution	al equa s	ation i	n three	varia	bles t	o Sp	Specific methods for obtaining solutions									
6	The clas different solution	ificatio	on of f lations	irst-or and t	der pa the co	rtial ncept	of	Fo	Formation of first-order partial differential equations									
7	Charact problem	eristic	curves	s and	the Ca	uchy		Ge	General solution									
8	Repeati	ng cou	rses a	nd mi	dterm	exam												
9	The ger	eral e	quatior	n of fir	st orde	er		exa	act inte	egral								
10	compati	ble sys	stems					То	obtair	the ex	kact inte	egral (C	harpit	Method)			
11	The sec linear pa constan	ond ar artial di t coeffi	nd high ifferen cients	ner oro tial eq	der hor Juation	nogen s with	ieous	Re	ducibl	e and i	rreducil	ole equ	ations					
12	The sec homoge equation	ond ar neous ns with	nd high linear const	ner ord partia ant co	der nor al differ pefficier	n- ential nts		To dif	obtair ferentia	n specia al equa	al soluti ations	ons of i	nhomo	ogeneo	us linear	partial		
13	Classific (hyperb	ation o olic, pa	of seco traboli	ond or c and	der eq elliptic	uation equat	is tions.)	Re	Reducing to canonical form									
14	The Cau curves	ichy pi	roblem	and t	the cha	aracter	ristic	Th	e nece	essity o	f classi	fication						
22	Textboo	ks Re	ferenc	es an	d/or O	ther		Pro	of Dr	Mehme	t CAĞI	IYAN	Okav (Celebi k	úsmi			
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LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	Contrib 1 very low ution Level:		2 low		3 Medium			4 High			5 Very High					