ENGINEERING MATHEMATICS										
1	Course Title:	ENGINE	ERING MATHEMATICS							
2	Course Code:	MAT207	8							
3	Type of Course:	Compuls	sory							
4	Level of Course:	First Cyc	cle							
5	Year of Study:	2								
6	Semester:	4								
7	ECTS Credits Allocated:	6.00								
8	Theoretical (hour/week):	4.00	4.00							
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.	EMRULLAH YAŞAR							
15	Course Lecturers:	Fen-Edebiyat Fakültesi Matematik Bölümü tüm öğretim üyeleri								
16	Contact information of the Course Coordinator:	e-posta:eyasar@uludag.edu.tr Telefon:0224 2941768 Adres:U.Ü Fen-Edb. Fak. Mat. Böl. B102 Görükle Bursa								
17	Website:									
18	Objective of the Course:	The aim of the course is to make the students gain the some algebraic properties on vectorial analysis including, vector, line and plane in R3, vector valued functions, limits and continuity of functions of several variables, partial derivatives, derivative with direction, gradient vector, double integrals and their applications, polar coordinates, Fubini theorem, arc integral integrals and their applications, Green theorem.								
19	Contribution of the Course to Professional Development:	Gains the backgrounds to follow the mathematical aspects of a problem arising or encountered in the field of agricultural sciences.								
20	Learning Outcomes:									
		1	Learn the definitions of vector, line, plane and some properties of them and learn the vector functions, limit, continuity, derivates and integrals							
		2	Learn the limit and continuity on functions of multi variables							
		3	Learn the partial derivatives and chain rule on multi variable functions							
		4	Learn the expansion of Taylor series in two variables functions							
		5	Learn the derivatives with directions and gradient vector on multi variable functions							
		6	Learn to solve the problems of maximum-minimum of functions of multi variables							
		7	Learn to calculate double integrals and their application areas							
		8	Learn to calculate arc integrals and application of Green theorem							
		9								
		10								
21	Course Content:									

		Course Content:															
Week	The	Theoretical								Practice							
1	Ove	rview	of ba	sic co	ncept	s on l	essons	5									
2	Vect then	ector, line, plane and some properties of em in R^3															
3	Limi vect	-imit, continuity, derivative and integral of vector valued functions and curvature of them															
4	Mult cont	i varia inuity	able fu of the	unctio em	ns an	d limit	and										
5	Part varia	Partial derivatives and chain rule of multi variable functions															
6	Tang varia	angent plane and chain rule on multi variable functions															
7	Deri	vative	es with	n direc	ction a	and gr	adient	vector									
8	Rep	eating	g cour	ses a	nd mi	dterm	exam										
9	Tayl func func	Taylor series expansion on multi variable functions, maximum-minimum problems of functions of multi variable functions															
10	Dou	ble in	tegral	s and	their	applic	ations										
11	Mas integ	s and grals	l cente	er of w	veight	on do	ouble										
12	Cha pola	Change of variables in double integrals and polar coordinates															
13	Arc	integr	als ar	nd the	ir app	licatio	ns						-				
Activites							1	Numb	er		Duration (hour)			Total V Load (I	Vork hour)		
Theore Materials:							20	18 14 14	ouri Δα	dvance	4.00	lue with	h Annli	56,00	n		
Practicals/Labs								()	0.00 0.00					0.00		
Self stu	dy a	nd pre	epera	tion					เป	J. Ste	wart. C	alculus	s. 9.00 56.00				
Homew	vorks								1	14			1.00	1.00			
Project	S		Aom				F	R)			0.00	0.00			
Field S	tudie	S							(C			0.00			0.00	
Øidz ern	Midzerm exams 0							0.0) O			11.00)		11.00		
Others									1	14			2.00			28.00	
Final E	Final Exams 1								60	100			15.00			15.00	
Total Work Load															180.00		
Construction ad Tanh (Year) Learning Activities to								40	.00						6.00		
ECTS Credit of the Course														6.00			
Contribution of Final Exam to Success Grade								60.									
Total								100.00									
Measurement and Evaluation Techniques Used in the Course							Me the Un	Measurement and evaluation are performed according to the Rules & Regulations of Bursa Uludağ University on Undergraduate Education.									
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		PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7 F	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16

ÖK1

ÖK2	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK3	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK4	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
ÖK5	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK6	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK7	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK8	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	ontrib 1 very low ition evel:			2 low			3 Medium			4 High			5 Very High			