	ADV	ANCEI	D ANALYSIS II						
1	Course Title:	ADVANC	CED ANALYSIS II						
2	Course Code:	MAT510	8						
3	Type of Course:	Optional							
4	Level of Course:	Third Cy	cle						
5	Year of Study:	1							
6	Semester:	2							
7	ECTS Credits Allocated:	6.00							
8	Theoretical (hour/week):	3.00							
9	Practice (hour/week):	0.00							
10	Laboratory (hour/week):	0							
11	Prerequisites:	No							
12	Language:	Turkish							
13	Mode of Delivery:	Face to f	ace						
14	Course Coordinator:	Dr. Ögr.	Üyesi ELİF YAŞAR						
15	Course Lecturers:	Prof.Dr.	Metin ÖZTÜRK						
16	Contact information of the Course Coordinator:	syalcin@uludag.edu.tr, 0(224)2941758, U.Ü. Fen Edebiyat Fakültesi Matematik Bölümü, 16059 BURSA							
17	Website:								
18	Objective of the Course:	To make Mathema on the G	the students to get the necessary knowledges about the atical Analysis they they would need in the rlated branches eneral Mathematics knowledges.						
19	Contribution of the Course to Professional Development:								
20	Learning Outcomes:								
		1	He/she determines the characters of the series with positive terms.						
		2	He/she determines the characters of the alterne series.						
		3	He/she determines the characters of the series with arbitrary terms.						
		4	He/she researches if the functions series are convergent and uniform						
		5	He/she calculates the derivative and integral of the power series.						
		6	He/she finds the küme that is convergent of the power series.						
		7	He/she calculates Taylor's series expansion of a function.						
		8	He/she calculates the infinite multiplications.						
		9	He/she uses the Gamma and Beta functions.						
		10	He/she knows the application areas of the fourier series.						
21	Course Content:	-							
147		Co	urse Content:						
Week		1	Practice						
1	I ne series with positive terms and T convergence criterions fort he series positive term	ne s with							
2	The Alterne series and The Leibntiz for Alterne series	criterions							

3	The ser converg	ies with ence c	n arbiti riterio	ary te ns for	rms ar these	nd the series											
4	The rela limit, int	uniform Ind dei	nly con rivativ	nverge e	nt seri	ies an	d										
5	The un series.	conve	ergent	of the	functi	on											
6	The pow of the p	ver ser ower s	ies, th eries.	e deri	vatives	and i	ntegra	al									
7	The Tay	/lor's p	olynon	ns and	d Taylo	or serie	es.										
8	The infi	nite mu	ultiplica	ations.													
9	The cor general integral	iverger ized int 3.	nce cri tegrals	terion and g	s for th genera	e lized											
10	Gamma	and B	eta Fu	Inctior	าร												
11	The Fou	urier se	eries.														
12	The app	licatio	n area	s of th	e Four	ier se	ries.										
13	The Fej converg	er The ence	orem,	and th	ne theo	orems	of										
14	Orthogo	Orthogonal functions															
22	Textboo Materia	ferenc	es an	d/or Ot	ther		Pri	inciple	s of Ma	athemat	ical Ana	alysis,	W. Rud	lin,			
23	Assesm	ent															
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ÖK6	5	5	1	1	2	3	4	4	4	2	0	0	0	0	0	0
ÖK7	5	5	1	1	2	3	4	4	4	2	0	0	0	0	0	0
ÖK8	5	5	1	1	2	3	4	4	4	2	0	0	0	0	0	0
ÖK9	5	5	1	1	2	3	4	4	4	2	0	0	0	0	0	0
ÖK10	5	5	1	1	2	3	4	4	4	2	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
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