

ESKİŞEHİR OSMANGAZİ UNIVERSITY
DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCES
POST-2024 ACADEMIC PROGRAM

1. GRADE											
1. TERM					2. TERM						
CODE	COURSE NAME	T	P	C	ECTS	CODE	COURSE NAME	T	P	C	ECTS
821611008	Analysis I	3	2	4	5	821612008	Analysis II	3	2	4	5
821611009	Analytic Geometry	3	0	3	4	821612009	Linear Algebra	3	0	3	4
821611013	Abstract Mathematics	3	0	3	4	821612013	Discrete Mathematics	3	0	3	4
821611010	Fundamentals of Computer Science I	3	0	3	4	821612010	Fundamentals of Computer Science II	3	0	3	4
821611007	Computer Programming I	3	0	3	4	821612007	Computer Programming II	3	0	3	4
821611004	H.T.R.P.A. I	2	0	2	2	821612004	H.T.R.P.A. II	2	0	2	2
821611012	Turkish Language I	2	0	2	2	821612012	Turkish Language II	2	0	2	2
821611011	English I	3	0	3	2	821612011	English II	3	0	3	2
	Rectorship Social Elective (1 Course)	2	0	2	3		Rectorship Social Elective (1 Course)	2	0	2	3
Total :		23/22	2/3	25	30	Total :		23/22	2/3	25	30

2. GRADE											
3. TERM					4. TERM						
CODE	COURSE NAME	T	P	C	ECTS	CODE	COURSE NAME	T	P	C	ECTS
821613001	Analysis III	3	0	3	5	821614001	Analysis IV	3	0	3	5
	Graph Theory	3	0	3	5		Artificial Intelligence	3	0	3	5
821613003	Differential Equations	3	0	3	5		Dynamical Systems	3	0	3	5
821613004	Computer Architecture	3	0	3	5	821614004	Probability and Statistics	3	0	3	5
821613005	Visual Programming I	3	0	3	5	821614005	Visual Programming II	3	0	3	5
	Departmental Elective Math I (1 Course)	3	0	3	5		Departmental Elective Math II (1 Course)	3	0	3	5
Total :		18	0	18	30	Total :		18	0	18	30

Departmental Elective Math I Courses				Departmental Elective Math II Courses			
821613006	Numerical Analysis I	821613007	Technical English I	821614006	Numerical Analysis II	821614007	Technical English II
	Apps. of Financial Math		Apps. of Analytic Geometry		Apps. of Graph Theory	821614009	Number Theory
					Apps. of Linear Algebra		

3. GRADE											
5. TERM					6. TERM						
CODE	COURSE NAME	T	P	C	ECTS	CODE	COURSE NAME	T	P	C	ECTS
	Modern Algebra	3	0	3	5	821616001	Topology	3	0	3	5
821615002	Differential Geometry	3	0	3	5	821616002	Complex Analysis	3	0	3	5
821615003	Symbolic Computations I	3	0	3	5	821616003	Algorithms	3	0	3	5
821615004	Mathematical Software and Design	3	0	3	5		Category Theory and Computer Science	3	0	3	5
	Departmental Elective Math III (1 Course)	3	0	3	5		Departmental Elective Math IV (1 Course)	3	0	3	5
	Departmental Elective Computer I (1 Course)	3	0	3	5		Departmental Elective Computer II (1 Course)	3	0	3	5
Total :		18	0	18	30	Total :		18	0	18	30

Departmental Elective Math III Courses				Departmental Elective Math IV Courses			
821615005	Partial Differential Equations	821615007	Uygulamalı İstatistik	821616005	Applied Mathematics	821616007	Applied Algebra
821615006	Applied Statistics		Optimization	821616006	Applied Differential Geometry		Optimization Methods and Apps.
					Transformations and Geometries		

Departmental Elective Computer I Courses				Departmental Elective Computer II Courses			
	Web Programming I	821615009	Simulation Techniques	821616008	Web Programming II	821616010	Web Based Applications
821615010	Database Mgmt. Systems	821615011	Data Security	821616009	Symbolic Computations II		Data Structures

4. GRADE											
7. TERM					8. TERM						
CODE	COURSE NAME	T	P	C	ECTS	CODE	COURSE NAME	T	P	C	ECTS
	Java	3	0	3	5		Cryptography	3	0	3	5
	Compulsory Elective I (Graduation Project)	2	2	4	5		Compulsory Elective II (Graduation Project)	2	2	4	5
	Departmental Elective Math V (2 Courses)	6	0	6	10		Departmental Elective Math VI (2 Courses)	6	0	6	10
	Departmental Elective Computer III (2 Courses)	6	0	6	10		Departmental Elective Computer IV (2 Courses)	6	0	6	10
Total :		17	2	19	30	Total :		17	2	19	30

Departmental Elective Math V Courses				Departmental Elective Math VI Courses			
821617002	Functional Analysis I	821617005	Metric Topology	821618002	Functional Analysis II	821618003	Homological Algebra
821617003	Algebra	821617006	Projective Geometry I	821618004	Algebraic Topology	821618005	Fuzzy Logic
821617004	Module Theory	821617007	Motion Geometry	821618006	Projective Geometry II	821618007	Fractal Geometry

Departmental Elective Computer III Courses				Departmental Elective Computer IV Courses			
821617009	Game Theory	821617010	Data Mining	821618008	Formal Languages and Automata	821618009	Artificial Network
	Block-chain	821617011	Hardware	821618010	Computer Graphics	821618011	Android Programming
	Functional Programming				Decision Support Systems		

Compulsory Elective I (Graduation Project) Courses				Compulsory Elective II (Graduation Project) Courses			
	Non-Euclidean Geometries I		Big Data and Machine Learning I		Non-Euclidean Geometries II		Big Data and Machine Learning II
	Computer Science Apps. I		Geometric Transformation I		Bilgisayar Bilimleri Uygulamaları II		Geometric Transformation II
	Mathematics, Nature and Art I		Differential Eqs. with Mathematica I		Mathematics, Nature and Art II		Differential Eqs. with Mathematica II
	Timelike Curves and Surfaces I		Linear Geometry I		Timelike Curves and Surfaces II		Linear Geometry II
	Topics in Ordinary Differential Eqs. I		Apps. of Advanced AI I		Topics in Ordinary Differential Eqs. II		Apps. of Advanced AI II
	Apps. of Category Theory I		Maple I		Apps. of Category Theory II		Maple II
	Topological Groups I		Difference Equations I		Topological Groups II		Difference Equations II
	Models of Real Projective Plane I		Commutative Algebras I		Models of Real Projective Plane II		Commutative Algebras II
	Fundamental Groups I		Finite Geometries I		Fundamental Groups II		Finite Geometries II
	Integral Equations I		Internet Programming I		Integral Equations II		Internet Programming II
	Math Computing with Visual C++ I		Geometric Structure I		Math Computing with Visual C++ II		Geometric Structure II
	Mathematical Modeling and Sim. I		Apps. of Numerical Sol. of the Partial Diff. Eqs. I		Mathematical Modeling and Sim. II		Apps. of Numerical Sol. of the Partial Diff. Eqs. II