Number	Course Code	Course Name	Z/S	T-P-K	AKTS
1	**MAT1001**	**Specialization Field Course (Master)**	**Z**	**6 0 0**	**6**
2	**MAT5010**	**Master Seminar**	**Z**	**0 2 0**	**6**
3	**MAT5020**	**Master Thesis**	**Z**	**0 1 0**	**24**
4	MAT5030	General Mathematical Analysis	Z	3-0-3	6
5	MAT5040	Fundamentals of Geometry	Z	3-0-3	6
6	MAT5050	Fundamentals of Applied Mathematics	Z	3-0-3	6
7	MAT5060	Academic Writing Methods	S	3-0-3	6
8	MAT5070	Hilbert Spaces and its Features	S	3-0-3	6
9	MAT5080	Sobolev Spaces and its Features	S	3-0-3	6
10	MAT5090	Theory of Multi-Variable Functions	S	3-0-3	6
11	MAT5100	Advanced Functional Analysis	S	3-0-3	6
12	MAT5110	Operator Theory	S	3-0-3	6
13	MAT5120	Sequence Spaces and Series	S	3-0-3	6
14	MAT5130	Fuzzy Set Theory	S	3-0-3	6
15	MAT5140	Spectral Theory of Differential Operators	S	3-0-3	6
16	MAT5150	Time Scale Calculus and Dynamic Systems	S	3-0-3	6
17	MAT5160	Fourier Analysis	S	3-0-3	6
18	MAT5170	Set Theory	S	3-0-3	6
19	MAT5180	Advanced Complex Analysis	S	3-0-3	6
20	MAT5190	Measurement and Integration	S	3-0-3	6
21	MAT5200	Analytical Functions	S	3-0-3	6
22	MAT5210	Meromorphic Functions and Some Applications	S	3-0-3	6
23	MAT5220	Matrix Transformations and Divergent Series	S	3-0-3	6
24	MAT5230	Riemannian Geometry	S	3-0-3	6
25	MAT5240	Theory of Curves	S	3-0-3	6
26	MAT5250	Manifolds Theory	S	3-0-3	6
27	MAT5260	Transformations in High Dimensional Spaces	S	3-0-3	6
28	MAT5270	Curves in Lorentzian Space	S	3-0-3	6
29	MAT5280	Surfaces in Lorentzian Space	S	3-0-3	6
30	MAT5290	Dual Numbers Theory	S	3-0-3	6
31	MAT5300	Quaternions Theory	S	3-0-3	6
32	MAT5310	Differential Forms	S	3-0-3	6
33	MAT5320	Theoretical Kinematics	S	3-0-3	6
34	MAT5330	Plane Kinematics	S	3-0-3	6
35	MAT5340	Semi Riemann Geometri	S	3-0-3	6
36	MAT5350	Isometry and Groups in Semi-Riemannian Geometry	S	3-0-3	6
37	MAT5360	Tensors and Vector Analysis	S	3-0-3	6
38	MAT5370	Affine Submanifolds	S	3-0-3	6
39	MAT5380	Affine Geometric Structures	S	3-0-3	6
40	MAT5390	Integration and Differential Geometry	S	3-0-3	6
41	MAT5400	Advanced Differential Geometry	S	3-0-3	6

42	MAT5410	Technology-Aided Geometric Design	S	3-0-3	6
43	MAT5420	Advanced Ordinary Differential Equations and Applications	S	3-0-3	6
44	MAT5430	Advanced Partial Differential Equations	S	3-0-3	6
45	MAT5440	Mathematical Physics	S	3-0-3	6
46	MAT5450	Advanced Nonlinear Differential Equations	S	3-0-3	6
47	MAT5460	Advanced Numerical Analysis and Applications	S	3-0-3	6
48	MAT5470	Eigenvalue Problems and Green Functions	S	3-0-3	6
49	MAT5480	Numerical Solutions of Ordinary Diffarential Equations	S	3-0-3	6
50	MAT5490	Numerical Solutions of Partial Diffarential Equations	S	3-0-3	6
51	MAT5500	Initial and Boundary Value Problems	S	3-0-3	6
52	MAT5510	Advanced Engineering Mathematics	S	3-0-3	6
53	MAT5520	Theory of Difference Equations	S	3-0-3	6
54	MAT5530	Finite Difference Method and Stability Analysis	S	3-0-3	6
55	MAT5540	Spectral Theory of Sturm-Liouville Operator	S	3-0-3	6
56	MAT5550	Analytical Solutions of Nonlinear Partial Differential Equations	S	3-0-3	6
57	MAT5560	Applications of Nonlinear Partial Differential Equations	S	3-0-3	6
58	MAT5570	Fractional Differential Equations	S	3-0-3	6
59	MAT5580	Applications of Fractional Differential Equations	S	3-0-3	6
60	MAT5590	Spectral Theory of Hill Equation	S	3-0-3	6
61	MAT5600	Laplace Transformations and its Applications	S	3-0-3	6
62	MAT5610	Mathematical Statistics	S	3-0-3	6
63	MAT5620	General Topology	S	3-0-3	6
64	MAT5630	Algebraic Topology	S	3-0-3	6
65	MAT5640	Advanced Algebra	S	3-0-3	6
66	MAT5650	Rings and Moduls Theory	S	3-0-3	6
67	MAT5660	Fundamentals of Mathematics	S	3-0-3	6
68	MAT5670	Applied Linear Algebra	S	3-0-3	6
69	MAT5680	q-Calculus and its Applications	S	3-0-3	6
70	MAT5690	Metric Topology	S	3-0-3	6
71	MAT5700	Banach Spaces and its Geometrical Properties	S	3-0-3	6
72	MAT5710	Convex Functions	S	3-0-3	6
73	MAT5720	Orlicz Spaces	S	3-0-3	6
74	MAT5730	Topological Groups and its Features	S	3-0-3	6
75	MAT5740	Harmonic Analysis	S	3-0-3	6
76	MAT5750	Positive Operators	S	3-0-3	6
77	MAT5760	Summability Methods	S	3-0-3	6
78	MAT5770	Advanced Analysis	S	3-0-3	6
79	MAT5780	Applied Functional Analysis	S	3-0-3	6
80	MAT5790	Inverse Problems of Spectral Theory	S	3-0-3	6
81	MAT5800	Sets and Functions Theory	S	3-0-3	6
82	MAT5810	Discrete Mathematics	S	3-0-3	6
83	MAT5820	Applied Curve Theory in Differential Geometry	S	3-0-3	6
84	MAT5830	Applied Surface Theory in Differential Geometry	S	3-0-3	6

85	MAT5840	Tensor Analysis and Relativity Theory	S	3-0-3	6
86	MAT5850	Algebraic Geometry	S	3-0-3	6
87	MAT5860	Fractal Geometry	S	3-0-3	6
88	MAT5870	Complex Manifolds	S	3-0-3	6
89	MAT5880	Differential Topology	S	3-0-3	6
90	MAT5890	Space Kinematics and Lie Groups	S	3-0-3	6
91	MAT5900	Finsler Geometry	S	3-0-3	6
92	MAT5910	Hessian Manifolds	S	3-0-3	6
93	MAT5920	Contact Manifolds	S	3-0-3	6
94	MAT5930	Statistical Manifolds	S	3-0-3	6
95	MAT5940	Isotropic Geometry	S	3-0-3	6
96	MAT5950	Geometry of Lightlike Manifolds	S	3-0-3	6
97	MAT5960	Submersion Theory	S	3-0-3	6
98	MAT5970	Fuzzy Differential Equations	S	3-0-3	6
99	MAT5980	Soliton Theory and Its Applications	S	3-0-3	6
100	MAT5990	Mathematical Bases of Artificial Neural Networks	S	3-0-3	6
101	MAT6000	Mathematical Foundations of Artificial Intelligence	S	3-0-3	6
102	MAT6010	Mathematical Programing and Modeling	S	3-0-3	6
103	MAT6020	High Succesful Mathematical Calculation in Technology	S	3-0-3	6
104	MAT6030	Methods of Mathematical Calculation	S	3-0-3	6
105	MAT6040	Biomathematics	S	3-0-3	6
106	MAT6050	Approximation Theory of Functions	S	3-0-3	6
107	MAT6060	Mathematical Optimization	S	3-0-3	6
108	MAT6070	Dynamical Systems of Nonlinear Differential Equations	S	3-0-3	6
109	MAT6080	Integral Equations and its Spectral Theory	S	3-0-3	6
110	MAT6090	Stochastic Differential Equations	S	3-0-3	6
111	MAT6100	Quantum Mechanics and Inverse Scattering Problems	S	3-0-3	6
112	MAT6110	Mathematical Modeling in Fluid Mechanics	S	3-0-3	6
113	MAT6120	Calculations of Variations	S	3-0-3	6
114	MAT6130	Mathematical modeling and Control Theory	S	3-0-3	6
115	MAT6140	Basic Methods of Mathematical Economics	S	3-0-3	6
116	MAT6150	Optimal Control Theory	S	3-0-3	6
117	MAT6160	Discrete Fractional Calculus	S	3-0-3	6
118	MAT6170	Lie Theory and its applications	S	3-0-3	6
119	MAT6180	Game Theory and Nash Equilibrium	S	3-0-3	6
120	MAT6190	Advanced Topology	S	3-0-3	6
121	MAT6200	Fuzzy Topology	S	3-0-3	6
122	MAT6210	Digital Topology	S	3-0-3	6
123	MAT6220	Numbers Theory and Cyrptology	S	3-0-3	6
124	MAT6230	Optical Theory	S	3-0-3	6
125	MAT6240	Mathematical Logic and Proof Techniques	S	3-0-3	6
126	MAT6250	Dynamic Geometry of Curves	S	3-0-3	6
127	MAT6260	Dynamic Geometry of Surfaces	S	3-0-3	6

128	MAT6270	Projective Geometry	S	3-0-3	6
129	MAT6280	Theory of Surfaces	S	3-0-3	6
130	MAT6290	Galilei Geometry	S	3-0-3	6
131	MAT6300	Geometry of Spline Curves	S	3-0-3	6
132	MAT6310	Fundamentals of Graph Theory	S	3-0-3	6
133	MAT6320	Geometry of Null Curves	S	3-0-3	6
134	MAT6330	Multiplicative Calculus	S	3-0-3	6
135	MAT6340	Proportional Fractional Dynamic Equations	S	3-0-3	6
136	**MAT1002**	**Specialization Field Course (PhD)**	**Z**	**8 0 0**	**6**
137	**MAT7010**	**PhD Seminar**	**Z**	**0 2 0**	**6**
138	**MAT7020**	**PhD Thesis**	**Z**	**0 1 0**	**24**
139	**MAT7030**	**PhD Qualification**	**Z**	**0 0 0**	**24**