

### COURSE PROFILE

Course Name	Code	Semester	Term	Theory +PS+Lab. (hour/week)	Local Credits	ECTS
Project	MATH 490	Spring	8	0+6+0	3	6

<b>Prerequisites</b>	Senior Standing
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<b>Course Language</b>	English
<b>Course Type</b>	Required
<b>Course Lecturer</b>	Prof. Dr. Elman Hasanoğlu
<b>Course Assistant</b>	--
<b>Course Objectives</b>	Reading, literature reviews and research projects in mathematics and related areas under the supervision of an academic advisor; submission of the results in the form of a Project report and oral presentation.
<b>Course Learning Outcomes</b>	By the end of the course the students should be able to propose, analyse, develop, write and present a problem which involves some aspects of mathematical theory.
<b>Course Content</b>	Design and development of a project for a mathematical problem under the supervision of an academic advisor; submission of the results in the form of a project report and oral presentation.

### COURSE CONTENT

Week	Subjects	Related Preparation
1	Project Study	
2	Project Study	
3	Project Study	
4	Project Study	
5	Project Study	
6	Project Study	

<b>7</b>	Project Study	
<b>8</b>	Project Study	
<b>9</b>	Project Study	
<b>10</b>	Project Study	
<b>11</b>	Project Study	
<b>12</b>	Project Study	
<b>13</b>	Project Study	
<b>14</b>	Project Presentation	

<b>Course Textbooks</b>	No textbook is required – Any textbook about the project subject will be appropriate.
<b>Recommended References</b>	N.J. Higham, Handbook of writing for the mathematical sciences, SIAM, 1998.

<b>Semester Requirements</b>	<b>Number</b>	<b>Percentage of Grade</b>
Attendance/Participation	-	-
Laboratory	-	-
Application	-	-
Special Course Internship (Work Placement)	-	-
Quizzes/Studio Critics	-	-
Homework Assignments	-	-
Presentation	-	-
Project	1	100
Seminar/Workshop	-	-
Midterms/Oral Exams	-	-
Final/Resit Exam	-	-
<b>Total</b>	<b>1</b>	<b>100</b>

<b>PERCENTAGE OF SEMESTER WORK</b>		
<b>PERCENTAGE OF FINAL WORK</b>	1	100
<b>Total</b>	1	100

Course Category	Core Courses	X
	Major Area Courses	
	Supportive Courses	
	Media and Management Skills Courses	
	Transferable Skill Courses	

#### COURSE'S CONTRIBUTION TO PROGRAM

#	Program Qualifications / Outcomes	* Level of Contribution				
		1	2	3	4	5
1	To have a grasp of basic mathematics, applied mathematics and theories and applications of statistics.					X
2	To be able to use theoretical and applied knowledge acquired in the advanced fields of mathematics and statistics,					X
3	To be able to define and analyze problems and to find solutions based on scientific methods,					X
4	To be able to apply mathematics and statistics in real life with interdisciplinary approach and to discover their potentials,					X
5	To be able to acquire necessary information and to make modeling in any field that mathematics is used and to improve herself/himself,					X
6	To be able to criticize and renew her/his own models and solutions,					X
7	To be able to tell theoretical and technical information easily to both experts in detail and nonexperts in basic and comprehensible way,					X
8	To be able to use international resources in English and in a second foreign language from the European Language Portfolio (at the level of B1) effectively and to keep knowledge up-to-date, to communicate comfortably with colleagues from Turkey and other countries, to follow periodic literature,					X
9	To be familiar with computer programs used in the fields of mathematics and statistics and					X

	to be able to use at least one of them effectively at the European Computer Driving Licence Advanced Level,					
<b>10</b>	To be able to behave in accordance with social, scientific and ethical values in each step of the projects involved and to be able to introduce and apply projects in terms of civic engagement,				X	
<b>11</b>	To be able to evaluate all processes effectively and to have enough awareness about quality management by being conscious and having intellectual background in the universal sense,				X	
<b>12</b>	By having a way of abstract thinking, to be able to connect concrete events and to transfer solutions, to be able to design experiments, collect data, and analyze results by scientific methods and to interfere,					X
<b>13</b>	To be able to continue lifelong learning by renewing the knowledge, the abilities and the competencies which have been developed during the program, and being conscious about lifelong learning,				X	
<b>14</b>	To be able to adapt and transfer the knowledge gained in the areas of mathematics and statistics to the level of secondary school,					X
<b>15</b>	To be able to conduct a research either as an individual or as a team member, and to be effective in each related step of the project, to take role in the decision process, to plan and manage the project by using time effectively.					X

\*1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest

#### ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION

Activities	Number	Duration (Hours)	Total Workload
<b>Course Hours (Including Exams)</b>	-	-	-
<b>Tutorials</b>	-	-	-
<b>Laboratory</b>	-	-	-
<b>Application</b>	-	-	-
<b>Special Course Internship (Work Placement)</b>	-	-	-
<b>Field Work</b>	-	-	-
<b>Study Hours Out of Class</b>	14	3	42
<b>Presentations / Seminar</b>	-	-	-
<b>Project</b>	1	46	46

<b>Preparatory reading</b>	14	3	42
<b>Homework Assignments</b>	-	-	-
<b>Quizzes</b>	-	-	-
<b>Midterm Exams</b>	-	-	-
<b>Final / Resit Exam</b>	1	20	20
		<b>Total Workload</b>	<b>150</b>

#### COURSE CATEGORY

<b>ISCED GENERAL AREA CODES</b>	<b>GENERAL AREAS</b>	<b>ISCED BASIC AREA CODES</b>	<b>BASIC EDUCATIONAL AREAS</b>	
1	Education	14	Teacher Training and Educational Sciences	0
2	Humanities and Art	21	Art	0
2	Humanities and Art	22	Humanities	0
3	Social Sciences, Management and Law	31	Social and Behavioral Sciences	0
3	Social Sciences, Management and Law	32	Journalism and Informatics	0
3	Social Sciences, Management and Law	38	Law	0
4	Science	42	Life Sciences	0
4	Science	44	Natural Sciences	0
4	Science	46	Mathematics and Statistics	90
4	Science	48	Computer	10
5	Engineering, Manufacturing and Civil	52	Engineering	0
5	Engineering, Manufacturing and Civil	54	Manufacturing and Processing	0
5	Engineering, Manufacturing and Civil	58	Architecture and Structure	0
6	Agriculture	62	Agriculture, Forestry, Livestock, Fishery	0
6	Agriculture	64	Veterinary	0

7	Medicine and Welfare	72	Medical	0
7	Medicine and Welfare	76	Social Services	0
8	Service	81	Personal Services	0
8	Service	84	Transport Services	0
8	Service	85	Environment Protection	0
8	Service	86	Security Services	0