



T.C.  
ESKİŞEHİR OSMANGAZİ ÜNİVERSİTESİ  
FACULTY OF SCIENCES  
STATISTICS DEPARTMENT

**COURSE INFORMATION FORM**

Course Name	Course Code
PROBABILITY AND STATISTICS	821614004

Semester	Number of Course Hours per Week		Credit	ECTS
	Theory	Practice		
4	3	0		5

Course Category (Credit)				
Basic Sciences	Engineering Sciences	Design	General Education	Social
X				

Course Language	Course Level	Course Type
Turkish	Undergraduate	Compulsory

<b>Prerequisite(s) if any</b>	No Prerequisites
<b>Objectives of the Course</b>	To present the basic concepts and properties of probability. To teach the identification, analysis, and solution methods of problems that can be solved using probability calculations.
<b>Short Course Content</b>	Calculation of probabilities, Probability functions, Cumulative distributions, Expected value, Arithmetic mean, Variance, Discrete distributions, Continuous distributions, Sampling, Sampling distributions

Learning Outcomes of the Course	Contributed PO(s)	Teaching Methods *	Measuring Methods **
1 To ensure that students learn and use the basic concepts in their field	1,2,6,7	1,2,6,10,13	A,K
2 Having sufficient knowledge in functions of probability	1,2,6,7	1,2,6,10,13	A,K
3 Solving the problems encountered using theoretical and applied knowledge	1,2,6,7	1,2,6,10,13	A,K
4 Modeling the problems encountered using theoretical and applied knowledge	1,2,6,7	1,2,6,10,13	A,K
5			
6			
7			
8			

\***Teaching Methods** 1:Expression, 2:Discussion, 3:Experiment, 4:Simulation, 5:Question-Answer, 6:Tutorial, 7:Observation, 8:Case Study, 9:Technical Visit, 10:Trouble/Problem Solving, 11:Individual Work, 12:Team/Group Work, 13:Brain Storm, 14:Project Design / Management, 15:Report Preparation and/or Presentation

\*\***Measuring Methods** A:Exam, B:Quiz, C:Oral Exam, D:Homework, E:Report, F:Article Examination, G:Presentation, I:Experimental Skill, J:Project Observation, K:Class Attendance; L:Jury Exam

<b>Main Textbook</b>	Olasılık ve İstatistik , F. Akdeniz, Baki Kitapevi Yayınları, 2002.
<b>Supporting References</b>	Related documents
<b>Necessary Course Material</b>	

<b>Course Schedule</b>	
<b>1</b>	Basic concepts and properties related to probability.
<b>2</b>	The probability of special events.
<b>3</b>	Random variables.
<b>4</b>	Distribution functions.
<b>5</b>	Cumulative distribution functions.
<b>6</b>	Expected value.
<b>7</b>	Arithmetic mean and variance.
<b>8</b>	Mid-Term Exam
<b>9</b>	Discrete distributions.
<b>10</b>	Discrete distributions.
<b>11</b>	Discrete distributions.
<b>12</b>	Continuous distributions.
<b>13</b>	Continuous distributions.
<b>14</b>	Continuous distributions.
<b>15</b>	Sampling distributions.
<b>16,17</b>	Final Exam

<b>Calculation of Course Workload</b>			
<b>Activities</b>	<b>Number</b>	<b>Time (Hour)</b>	<b>Total Workload (Hour)</b>
Course Time (number of course hours per week)	15	4	60
Classroom Studying Time (review, reinforcing, prestudy,...)	15	2	30
Homework	0	0	0
Quiz Exam	0	0	0
Studying for Quiz Exam	0	0	0
Oral exam	0	0	0
Studying for Oral Exam	0	0	0
Report (Preparation and presentation time included)	0	0	0
Project (Preparation and presentation time included)	0	0	0
Presentation (Preparation time included)	0	0	0
Mid-Term Exam	1	2	2
Studying for Mid-Term Exam	1	24	24
Final Exam	1	2	2
Studying for Final Exam	1	24	24
<b>Total workload</b>			<b>142</b>
<b>Total workload / 30</b>			<b>4,73</b>
<b>Course ECTS Credit</b>			<b>5</b>

Evaluation	
<b>Activity Type</b>	<b>%</b>
Mid-term	40
Quiz	0
Homework	
Bir öge seçin.	
Bir öge seçin.	
<b>Final Exam</b>	60
<b>Total</b>	100

RELATIONSHIP BETWEEN THE COURSE LEARNING OUTCOMES AND THE PROGRAM OUTCOMES (PO) (5: Very high, 4: High, 3: Middle, 2: Low, 1: Very low)		
NO	PROGRAM OUTCOME	Contribution
1	The ability to apply knowledges of Mathematics and Computer Sciences,	3
2	To have sufficient theoretical and practical knowledge of Mathematics at international level,	3
3	The ability of describing, modelling and solving of mathematical problems at Mathematics and related subjects,	1
4	The skill to solve and design a problem process in accordance with a defined target,	2
5	Skills to analyze data, interpret and apply to other datum and using these data on computer,	2
6	The skill to use the modern techniques and computational tools needed for mathematical applications,	4
7	The skill to make team work within the discipline and interdisciplinary,	5
8	The ability to improve oneself by following the developments on other modern, scientific and technological subjects as well as Mathematics and Computer Sciences,	2
9	The skill to communicate orally and in written way, in a clear and concise manner by having individual work skills and ability to independently decide and analytical thinking,	2
10	The skill to have professional and ethical responsibility,	2
11	The skill to have consciousness for quality issues and scientific research,	2
12	The skill to be sensitive to environmental issues related with problems and development of living area and consistent in the social relations,	2
13	Ability to solve problems in the working life faced to find an appropriate algorithms via mathematical modeling and to write computer programs,	2
14	The skill to developed design of software systems at different complex levels,	2
15	The credence of necessity of life-long learning and ability to apply the formation long-life learning.	2

LECTUTER(S)				
<b>Prepared by</b>	Dr. Barış Ergül			
<b>Signature(s)</b>				

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