

TOROS ÜNİVERSİTESİ

Faculty Of Engineering
Electrical And Electronics Engineering (English)

Course Information

PROBABILITY AND RANDOM VARIABLES					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
EEE208	Spring	3	0	3	4

Prerequisites and co-requisites	Prof. Dr. Adnan MAZMANOĞLU
Language of instruction	English
Type	Required
Level of Course	Bachelor's
Lecturer	
Mode of Delivery	Face to Face
Suggested Subject	
Professional practise (internship)	None
Objectives of the Course	Help students learn, understand, explain, and use concepts about probability, and to prepare them for further study in engineering.
Contents of the Course	Counting Techniques, Addition and Multiplication Rules, Bayes Theorem, Distributions (Normal, Binom, Poisson etc.)

Learning Outcomes of Course

#	Learning Outcomes
1	Getting knowledge about Interpretations and Axioms of Probability
2	Getting knowledge about Multiplication and Total Probability Rules, Independence and Bayes' Theorem
3	Getting knowledge about Cumulative Distribution Functions, Binomial Distribution
4	Getting knowledge about Sample Spaces and Events, Probability and Probability Models,

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Probability and Probability Models	Lecture
2	Sample Spaces and Events	Lecture
3	Counting Techniques	Lecture
4	Interpretations and Axioms of Probability	Lecture
5	Addition Rules and Conditional Probability	Lecture
6	Multiplication and Total Probability Rules	Lecture
7	Independence and Bayes' Theorem	Lecture
8	Midterm Exam	
9	Random Variables: Discrete and Continuous	Lecture
10	Cumulative Distribution Functions	Lecture
11	Mean and Variance of a Discrete Random Variable	Lecture
12	Binomial Distribution	Lecture

13	Geometric and Negative Binomial Distributions	Lecture
14	Poisson Distribution	Lecture
15	Normal Distribution	Lecture
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	Douglas C. Montgomery and George C. Runger, Applied Statistics and Probability for Engineers, Sixth Edition, John Wiley & Sons, 2014, ISBN-13 9781118539712.		

Method of Assessment

#	Weight	Work Type	Work Title
1	40%	Mid-Term Exam	Mid-Term Exam
2	60%	Final Exam	Final Exam

Relationship between Learning Outcomes of Course and Program Outcomes

#	Learning Outcomes	Program Outcomes	Method of Assessment
1	Getting knowledge about Interpretations and Axioms of Probability	1	1,2
2	Getting knowledge about Multiplication and Total Probability Rules, Independence and Bayes' Theorem	1	1,2
3	Getting knowledge about Cumulative Distribution Functions, Binomial Distribution	1	1,2
4	Getting knowledge about Sample Spaces and Events, Probability and Probability Models,	1	1,2

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

Work Load Details

#	Type of Work	Quantity	Time (Hour)	Work Load
1	Course Duration	14	3	42
2	Course Duration Except Class (Preliminary Study, Enhancement)	14	3	42
3	Presentation and Seminar Preparation	0	0	0
4	Web Research, Library and Archival Work	0	0	0
5	Document/Information Listing	0	0	0
6	Workshop	0	0	0
7	Preparation for Midterm Exam	1	15	15
8	Midterm Exam	1	2	2
9	Quiz	0	0	0
10	Homework	0	0	0
11	Midterm Project	0	0	0
12	Midterm Exercise	0	0	0
13	Final Project	0	0	0
14	Final Exercise	0	0	0
15	Preparation for Final Exam	1	20	20
16	Final Exam	1	2	2

