

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
OPR201	PROBABILITY AND STATISTICS FOR ENGINEERS	3.00	0.00	0.00	3.00	5.00
Course Detail						
Course Language	: English					
Qualification Degree	: Bachelor					
Course Type	: Compulsory					
Preconditions	: Not					
Objectives of the Course	: This course aims to introduce students the theory of probability and statistics by the use of applications in engineering.					
Course Contents	: Introduction to Statistics and Data Analysis, Probability, Discrete and Continuous Random Variables and Probability Distributions, Sampling Distributions, Estimation, Hypothesis Testing					
Recommended or Required Reading	: 1. "Probability and Statistics for Engineers and Scientists", 9th Edition, Pearson by R. E. Walpole, R. H. Myers, S. L. Myers, and K. Ye. 2. "Statistics For Engineers And Scientists", 5th Edition, McGraw Hill by W. Navidi.					
Planned Learning Activities and Teaching Methods	: Face-to-face and student-centered interactive education					
Recommended Optional Programme Components	: None					
Instructors	: Prof. Dr. Femin Yalçın Küçükbayrak					
Instructor's Assistants	: None					
Presentation Of Course	: Presentation, Face-to-face education					
En Son Güncelleme Tarihi:	: 7/22/2024 11:15:46 AM					

Course Outcomes

Upon the completion of this course a student :

- 1 Will be able to analyze and interpret data graphically and numerically.
- 2 Will be able to use fundamental concepts of probability and its rules, describe conditional probability, discuss independence of events, and apply the total probability rule and Bayes' theorem.
- 3 Will be able to identify discrete random variables and compute their probability distributions, means, variances, and standard deviations.
- 4 Will be able to identify continuous random variables and compute their probability distributions, means, variances, and standard deviations.
- 5 Will be able to conduct statistical inference.

Preconditions

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
-------------	-------------	----------	----------	------------	---------	------

Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods	Course Learning Outcomes
1.Week	*Introduction to Statistics and Data Analysis					
2.Week	*Introduction to Statistics and Data Analysis					
3.Week	*Probability					
4.Week	*Probability					
5.Week	*Discrete Random Variables and Probability Distributions					
6.Week	*Continuous Random Variables and Probability Distributions					
7.Week	*Means, Variances, and Standard Deviations of Random Variables					
8.Week	*Midterm Exam					
9.Week	*Some Discrete Probability Distributions					
10.Week	*Some Continuous Probability Distributions					
11.Week	*Sampling Distributions					
12.Week	*Estimation Methods					
13.Week	*Tests of Hypotheses					
14.Week	*Review of semester					

Assesment Methods %

3 Final : 50.000

4 Mdterms : 50.000

