Department of Geomatics Engineering / Faculty Of Engineering And Architecture / Department of Geomatics Engineering

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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	urse : 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 Require 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 Activitie Teaching Methods	s and : 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

s 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	%
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3 Final : 50.000

4 Midterms : 50.000

ECTS Workload

Activities	Count	Time(Hour)	Sum of Workload
Vize / Midterms	1	2.00	2.00
Final / Final	1	2.00	2.00
Derse Katılım / Attending lectures	14	3.00	42.00
Ara Sınav Hazırlık / Preparation for midterm	1	21.00	21.00
Final Sınavı Hazırlık / Preparation for final	1	30.00	30.00
Ders Öncesi Biresysel Çalışma / Individual study before lecture	14	2.00	28.00
Ders Sonrası Biresysel Çalışma / Individual study after lecture	14	2.00	28.00
		Tota	al : 153.00
	Su	m of Workload / 30 (Hour): 5

ECTS: 5.00

Program And OutcomeRelation

	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11
L.O. 1	5	0	0	0	0	0	0	0	0	0	0
L.O. 2	5	0	0	0	0	0	0	0	0	0	0
L.O. 3	5	0	0	0	0	0	0	0	0	0	0
L.O. 4	5	0	0	0	0	0	0	0	0	0	0
L.O. 5	5	0	0	0	0	0	0	0	0	0	0