2025-2026 Academic Year
List of Courses Offered in Foreign Language
2025-2026 Akademik Yılı
Yabancı Dilde Açılacak Dersler Listesi

Institute of Natural and Applied Sciences
Fen Bilimleri Enstitüsü

	Department *Bölüm*	Course Code *Ders Kodu*	ECTS *AKTS*	Course Title *Dersin Adı*	Semester *Dönem*	Course Content *Dersin İçeriği*	Academic Staff *Dersi Veren Öğretim Elemanı*	Online Available *Çevrimiçi*
1	Animal Science	ZOB 5050	6	Planning of Experiments	Spring	Planning of experiments, randomization,replication and blokcking, advantage and disadvantages of different plans, analysis of variance for randomized blocks, nested designs, Latin square designs, factorial trials split plots and strip blocks. Utilizing SAS and MINITAB statistical packages throughout the course and interpretation of computer printouts	Prof. Dr. Mehmet Ziya FIRAT	
2	Animal Science	ZOB 7051	6	Statistical Analysis of Linear Models	Winter	Introduction, One-way classification mixed models, Single-predictor mixed models, Linear models, Generalized linear models, Linear (generalized) model analysis in SAS, Linear mixed models, Linear mixed models in SAS, Prediction for mixed models, Computing for mixed models, Generalized linear mixed model analysis in SAS	Prof. Dr. Mehmet Ziya FIRAT	
3	Animal Science	EKN5017	3	Data Analysis	Winter	Principles of statistics, types of data and analysis methods, probability, discrete and continuous probability distributions, hypothesis sting, confidence limits, analysis of rxc tables, analysis of simple linear regression and correlation	Prof. Dr. Mehmet Ziya FIRAT	
4	Animal Science	ZOB 7052	6	Regression Analysis	Spring	Simple linear regression and multiple linear regression models; Model assumptions; Inferences about model parameters, Assessing the utility of the model; Checking assumptions; Selection of independent variables. Nonlinear regressions. MINITAB and SAS implementation of the above topics	Prof. Dr. Mehmet Ziya FIRAT	
5	Animal Science	2				The trainee wil have experience related with basic statistical methods, and data analysis	Prof. Dr. Mehmet Ziya FIRAT	
6	Animal Science	ZOB 7048	3	COMPUTATIONAL APPLICATIONS IN GENOMICS	Winter/ Spring	1)Example datasets and an Introduction to R 2) Base packages in R, obtaining descriptive statistics and associated graphs. 3) Statistical packages in R and concepts of Population Genetics and Genomics 4) Experimental Designs, Data Concepts and Terminology in Genomics 5) Quality Control for Genomics Data Sets using R: Hardy Weinberg EquilibriumCall Rates for SNPs and Individuals, Minor Allele Frequency, Genotyping Errors and Identifying relatedness 6) Detecting ancestral information using principal component and clustering analyses 7) Contingecy Tables and ChiSquare tests for single locus Genome Wide Association 8) Population stratification and correction. 9-10) Multiple Comparison Procedures using Bonferroni, Tukey, False Discovery Rate and Permutation tests 11) Classification and regression trees 12) Random Forests 13) GenexGene Interactions and 14-15) Genomic Selection	Prof.Dr.Burak KARACAÖREN	