AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Computer Supported Biostatistics								
Course Code	VZO605		Couse Level	Third Cycle (Doctorate Degree)					
ECTS Credit	6	Workload	145 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	To teach descriptive measures, making table and graphics, sample and sampling methods, theoretical distributions, significance tests (Student's t Test, Analyse of Variance, Chi-Square, Mann-Whitney-U Test, etc), analyse of correlation and regression								
Course Content	Statistical concepts, distribution of frequency, descriptive measures, table and graphics, sampling methods, parametric and non-parametric tests, analyse of correlation and regression, use of SPSS Package Program.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Individual Study								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Özdamar, K. (1999): SPSS ile Biyoistatistik. Kaan Kitabevi, Eskişehir.
2	Tekin, M.E. (2010): Örneklerle Bilgisayarda İstatistik. Selçuk Üniversitesi Basımevi, Konya
3	Sümbüloğlu, K, Sümbüloğlu, V. (1990): Biyoistatistik. Hatiboğlu Yayınları:53, Ankara
4	Mrode, R.A. (2005): Linear Models for the Prediction of Animal Breeding Values. CABI publishing, Cambridge, USA.
5	Petrie, A., Watson, P. (1999): Statistics for Veterinary and Animal Science. Blackwell Science Ltd.

Week	Weekly Detailed Course Contents	
1	Theoretical	Basic statistical terms
2	Theoretical	Descriptive measures of distribution (arithmetic, harmonic and geometric means, mod and median)
3	Theoretical	Widespread measures of distribution (standard deviation, standard error of mean, variance, coefficient of variation)
4	Theoretical	Making graphics from a data base
5	Theoretical	Presenting data with tables
6	Theoretical	Sampling
7	Theoretical	Sampling methods
8	Intermediate Exam	Midterm exam
9	Theoretical	Theorical distributions (Binom, Poisson and normal distributions)
11	Theoretical	Analyze of Variance (ANOVA)
12	Theoretical	Analyze of Chi-Squire
13	Theoretical	Analyze of correlation and regression
14	Theoretical	Analyze of time series

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	5	0	10	50
Reading	1	0	40	40
Midterm Examination	1	10	1	11

Final Examination	1	15	1	16
			Total Workload (Hours)	145
			[Total Workload (Hours) / 25*] = **ECTS**	6
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	to be able Know and annotate statistical concepts.
2	to be able Collect and edit data for any subject.
3	to be able Present data via tables and graphics.
4	to be able Make sufficient samples from the population.
5	to be able Use and annotate significance tests.

Programme Outcomes *(Pharmacology and Toxicology (Veterinary Medicine) Doctorate)*	
1	Gains expert knowledge on field of pharmacology and toxicology in veterinary medicine and, gains expert knowledge on interdisciplinary interaction in pharmacology and toxicology
2	To be equipped with the knowledge to develop original ideas about necessary issues in the field by using of both graduate and expertise levels knowledge, to be able to develop original definitions, products and diagnostic procedures, etc. via deepening and questioning these knowledge.
3	Develops and uses strategies in his/her field of expertise in PhD Program of Pharmacology and Toxicology
4	Reviews, evaluates and interprets any data (field observations, available scientific information etc.) towards a specific purpose.
5	Gains expert knowledge on the function and basic pharmacological features of pharmacology and sub-branches of science, relationship between the drug and poison, pharmacokinetic, effects of the drugs, the dose-intensity and dose-effect relationship.
6	Gains expert knowledge on the function and basic toxicological features of poison, classifications and types of poisoning, toxicokinetic, general principles of treatment of poisoning.
7	Can offer training to technical staff who will work in pharmacology and toxicology laboratory
8	Reach to competence to prepare courses at the undergraduate level
9	Determines and uses laboratory equipment and consumables in a pharmacology and toxicology laboratory.
10	To be able to plan an interdisciplinary project and build team for the known or new defined problems and to manage and complete such a project when necessary.
11	To share his/her knowledge in the field with others by attending at field-related or other congresses, panels, symposiums, workshops, seminars, article discussions and problem solving sessions, etc., and to contribute to the solution in the team by establishing relations with the experts in different fields.
12	To contribute the scientific knowledge in the field via publications in national and international peer-reviewed scientific journals.
13	Takes roles in vocational organizations and institution.
14	Forms ideas to solve complex problems using theoretical and practical information gained throughout the pharmacology and toxicology education.
15	To adopt lifelong learning as a principle and acknowledge that the information gained through research is the most valuable gain.
16	Knows and protects rights of ideas and industrial property (patent right)