General information	
Academic subject	**MATHEMATIC** (integrated exam of MATHEMATIC AND PHISIC)
Degree course	Animal Science
Academic Year	2022/2023 – I year
European Credit Transfer and Accumulation System (ECTS)	6
Language	Italian
Academic calendar (starting and ending date)	I semester
Attendance	Mandatory

Professor/ Lecturer	
Name and Surname	Paolo Capozza
E-mail	paolo.capozza@uniba.it
Telephone	+390805443835
Department and address	Campus of Veterinary Medicine S.P.62 per Casamassima km 3, 70010 Valenzano (Ba)
Virtual headquarters	Teams code: 6co0jji
Tutoring (time and day)	The teacher receives personally by agreement or via e-mail and Teams any day, except for institutional commitments

Syllabus	
Learning Objectives	The course aims to prepare the student with preparatory knowledge by providing general concepts of preparation, reading and interpretation of data including their collection and graphic presentation.
Course prerequisites	Mathematics, elementary computer science
Contents	Introduction to statistics and verification of preparatory notions. Descriptive statistical analysis, variables, and factor concepts. Concept of probability and its application, statistical distributions. Basics of probability and inference. Analysis of variance, linear regression and hints of multiple regression, non-parametric tests. Experimental design. Practical exercises using R and MS Excel
Books and bibliography	book: Elementi di Statistica di Base per le scienze Zootecniche; Giuseppe Conte, Corrado Dimauro, Niccolo Macciotta. Ed. EFG per ASPA - 2018 Fowler Jim, Jarvis Phil, Chevannes Mel – "Statistica per le professioni sanitarie" Ed. EdiSES a cura di Corrado Magnani (2011); lecture notes
Additional materials	There are several valid texts, the student is invited to consult the teacher to evaluate their usefulness.

Work schedule			
Total	*Lectures*	*Hands on (Laboratory, working groups, seminars, field trips)*	*Out-of-class study hours/ Self-study hours*
Hours			
150	**48**	**0**	**102**
ECTS			
6	**6**	**0**	
Teaching strategy	*Theoretical lessons will take place in the classroom, using a personal computer connected to a projector, to show, at the same time as the explanation, power point slides and explanatory videos.*		

U.O. Didattica e servizi agli studenti
Strada prov.le 62 per Casamassima, km. 3,00
70010 Valenzano (Bari) - Italy
Tel. (+39) 080 5443944-41-46 • fax (+39) 080 5443939
didattica.veterinaria@uniba.it

Expected learning outcomes	The skills acquired will be evaluated continuously during the course, through questions and case studies related to the course. The learning outcomes covered are represented by:
Knowledge and understanding on:	Knowledge suitable for understanding a joint of data and the strategies used to extrapolate useful information or to produce predictions on repeated events.
Applying knowledge and understanding on:	Knowledge of the usefulness of statistical analysis as tools for understanding events or for understanding the trend of phenotypes related to production or animal health.
Soft skills	Ability to identify the most suitable strategies for application in animals of zootechnical interest or in those of affection with particular attention to interactions with other disciplines. The ability to interpret and use data and reports from other disciplines and integrate this information for more effective action.

Assessment and feedback	
Methods of assessment	The skills acquired will be assessed towards the end of the course, through questions and practical exercises on topics related to the course. At the end of the course, the student must be able to:
Evaluation criteria	- Knowledge and understanding: - o Know the methods of data collection and preparation - o Know the main techniques of exploration and description of a dataset - o Knowing the variability analysis strategies and making predictions and inferences. - Applied knowledge and understanding: - o Knowing how to extract and use data in the zootechnical and veterinary fields. - o Knowing how to decide the appropriate statistical tool for the interpretation of the phenomenon. - Autonomy of judgment: - o Being able to express his opinion independently - Communication skills: - o good ability to present the proposed topics - Ability to learn: - o Correct answers to the questions / topics proposed / I.
Criteria for assessment and attribution of the final mark	The assessment of the learning achieved takes place through a written exam consisting of multiple-choice questions and supplementary open-ended questions, with the aim of ascertaining the degree of knowledge of the proposed topics. The vote is expressed out of thirty. The minimum mark to pass the exam is 18. The evaluations with the highest score are attributed to students capable of using the correct scientific terminology and with good exposition skills.
Additional information	
	--

U.O. Didattica e servizi agli studenti
Strada prov.le 62 per Casamassima, km. 3,00
70010 Valenzano (Bari) - Italy
Tel. (+39) 080 5443944-41-46 • fax (+39) 080 5443939
didattica.veterinaria@uniba.it