General Information	
Academic subject	Statistics (I.C. Mathematics and Statistics)
Degree course	Bachelor programme: Food Science and Technology
ECTS credits	3 ECTS
Compulsory attendance	No
Teaching language	Italiano

Subject teacher	Name Surname	Mail address
	Viviana D'Addosio	viv.daddo@gmail.com

ECTS credits details		
Basic teaching activities	2 ECTS Lectures	1 ECTS Laboratory or field classes

Class schedule	
Period	I semester
Course year	First
Type of class	Lecture- workshops

Time management	
Hours	75
In-class study hours	30
Out-of-class study hours	45

Academic calendar	
Class begins	October 18th, 2021
Class ends	January 28th, 2022

Syllabus	
Prerequisites/requirements	Basic mathematics knowledge (functions, integrals, summations)
Expected learning outcomes	*Knowledge and understanding* ○ Knowledge of the main synthetic measures of series and distributions data ○ Knowledge of normal distribution and measures of dependence and interdependence between quantitative and qualitative characters ○ Basic knowledge of statistical methodologies for the analysis and interpretation of environmental, physical, chemical, territorial, food and technological phenomena *Applying knowledge and understanding* ○ Ability to apply statistical methodologies to analyze data and interpret them, developing deductions and reasoning about them *Making informed judgements and choices* ○ Ability to perform statistical analysis, collect data and interpret them with the main synthesis and variability measures to implement actions to improve the quality and efficiency of food production and any other related activity, including in terms of environmental sustainability and eco- compatibility *Communicating knowledge and understanding* ○ Ability to describe the phenomena studied and to interpret the obtained statistical results *Capacities to continue learning* ○ Ability to expand and update their knowledge in the field of statistics The expected learning outcomes, in terms of both knowledge and skills, are provided in Annex A of the Academic Regulations of the Degree in Food

	Science and Technology (expressed through the European Descriptors of the qualification)
Contents	Chapter 1. Introduction to Statistics Chapter 2. Detection and classification of data. Chapter 3. Various types of statistical tables Chapter 4. Graphic representations Chapter 5. Statistical Reports Chapter 6. Medium Chapter 7. Variability: Dispersion and Inequality Measures Chapter 8. Asymmetry, normal curve and abnormality Chapter 9. Analytical representation of distributions Chapter 11. General concepts about internal relationships between the components of a double statistical variable Chapter 12. Analysis of dependence Chapter 13. Analysis of interdependence Chapter 15. Analysis of statistical mutable
Course program	
Reference books	• Notes of the lectures • G. GIRONE-C. CROCETTA-A. MASSARI, "Statistica", Bari, Cacucci Editore, 2019 • P. PERCHINUNNO- V. C. DE NICOLO', "Esercizi di Statistica", CLEUP, 2010
Notes	The book for studying and deepening the methodological content is the 'Girone-Pace', but for practical applications and exercises is 'Perchinunno-De Nicolò'.
Teaching methods	Frontal lessons, exercises cases of study, and small surveys by building and proposing questionnaires. Lectures will be presented by means of Power Point presentations. Lecture notes and educational supplies will be provided by means of a mailing list or online platforms (i.e.: Edmodo, Google Drive…)
Evaluation methods	There are two tests for students enrolled in the course year: one for basic statistics (average, variation, form of distribution) and one for the relationship between two qualitative or quantitative characters. The exam consists of an oral dissertation on the topics developed during the theoretical and theoretical-practical lectures in the classroom and in the laboratory/production plants, as reported in the Academic Regulations for the Bachelor Degree in Food Science and Technology (article 9) and in the study plan (Annex A). Students attending at the lectures may have a middle-term preliminary exam, consisting of a written test, relative to the first part of the program, which will concur to the final evaluation and will be considered valid for a year. The evaluation of the preparation of the student occurs on the basis of established criteria, as detailed in Annex B of the Academic Regulations for the Bachelor Degree in Food Science and Technology. Non-Italian students may be examined in English language, according to the aforesaid procedures.
Evaluation criteria	*Knowledge and understanding* ○ Know the statistical methods for the analysis and interpretation of phenomena, starting from the data capture and acquisition (definition of units, characters, mode) ○ data processing (construction of tables and graphic representations) ○ correctly interpret from a statistical standpoint the phenomena under study (synthesis, variability, form distribution and r relationship between characters) *Applying knowledge and understanding*

	○ Describe the statistical methodologies to apply for analyzing data and interpreting them, developing deductions and reasoning about them *Making informed judgements and choices* ○ Introduce reasonable hypotheses to improve the quality and efficiency of food production and other related activities, including in terms of environmental sustainability and eco-compatibility *Communicating knowledge and understanding* ○ Describe the phenomena studied and interpret the statistical results obtained by showing exposure capabilities and presentation and interpretation skills *Capacities to continue learning* ○ Thinking an approach to employ acquired knowledge through specific statistical software
Receiving times	To be agreed with the students