

| General Information | |
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| 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 |
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| | Viviana D'Addosio | viv.daddo@gmail.com |

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

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

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

| Academic calendar | |
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| Class begins | October 7 th , 2019 |
| Class ends | January 24 th , 2020 |

| Syllabus | |
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| Prerequisites/requirements | Basic mathematics knowledge (functions, integrals, summations) |
| Expected learning outcomes | <p><i>Knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ 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 <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ Ability to apply statistical methodologies to analyze data and interpret them, developing deductions and reasoning about them <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> ○ 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 <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ Ability to describe the phenomena studied and to interpret the obtained statistical results <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> ○ Ability to expand and update their knowledge in the field of statistics <p>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</p> |

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| | Science and Technology (expressed through the European Descriptors of the qualification) |
| Contents | <p>Chapter 1. Introduction to Statistics</p> <p>Chapter 2. Detection and classification of data.</p> <p>Chapter 3. Various types of statistical tables</p> <p>Chapter 4. Graphic representations</p> <p>Chapter 5. Statistical Reports</p> <p>Chapter 6. Medium</p> <p>Chapter 7. Variability: Dispersion and Inequality Measures</p> <p>Chapter 8. Asymmetry, normal curve and abnormality</p> <p>Chapter 9. Analytical representation of distributions</p> <p>Chapter 11. General concepts about internal relationships between the components of a double statistical variable</p> <p>Chapter 12. Analysis of dependence</p> <p>Chapter 13. Analysis of interdependence</p> <p>Chapter 15. Analysis of statistical mutable</p> |
| Course program | |
| Reference books | <ul style="list-style-type: none"> • Notes of the lectures • G. GIRONI "Statistica", Bari, Cacucci • P. PERCHINUNNO- V. C. DE NICOLÒ', "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 | <p>Frontal lessons, exercises cases of study, and small surveys by building and proposing questionnaires. Lectures will be presented by means of Power Point presentations.</p> <p>Lecture notes and educational supplies will be provided by means of a mailing list or online platforms (i.e.: Edmodo, Google Drive...)</p> |
| Evaluation methods | <p>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.</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Non-Italian students may be examined in English language, according to the aforesaid procedures.</p> |
| Evaluation criteria | <p><i>Knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ 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) ○ the statistical interpretation of the phenomena under study (synthesis, variability, form distribution and r relationship between characters) <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ Describe the statistical methodologies to apply for analyzing data |

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| | <p>and interpreting them, developing deductions and reasoning about them</p> <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> ○ 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 <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ Describe the phenomena studied and interpret the statistical results obtained by showing exposure capabilities and presentation and interpretation skills <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> ○ Thinking an approach to employ acquired knowledge through specific statistical software |
| Receiving times | To be agreed with the students |