General Information	
Academic subject	Food processing plants (I.C. Agro-food processing plants)
Degree course	Food Science and Technology
Curriculum	all
ECTS credits	6
Compulsory attendance	NO
Language	Italian

Subject teacher	Name Surname	Mail address	SSD
	Alessandro Leone	alessandro.leone@uniba.it	AGR09

ECTS credits details			ETCs
Basic teaching activities	4 ECTS Lectures	2 ECTS class and field exercises,	
		site visits	

Class schedule	
Period	Second semester
Year	2021-2022
Type of class	Lectures, class and field exercises, site visits

Time management	
Hours	150
In-class study hours	60
Out-of-class study hours	90

Academic calendar	
Class begins	01/03/22
Class ends	17/06/22

Syllabus Prerequisites/requirements Expected learning outcomes Knowledge and understanding (according to Dublin Descriptors) Mastery of logical and cognitive tools to understand the main (it is recommended that they are transformation processes of the food industry and the combination: congruent with the learning production process - product quality; outcomes contained in A4a, A4b, o Knowledge of the criteria for the use of machines and plants for food A4c tables of the SUA-CdS) processing and storage. Applying knowledge and understanding o Knowledge of the influence of the technical solutions adopted on crops and breeding on the quality of raw materials; o knowledge of the main dimensional, constructive and design aspects of the food industries; o understanding of structure-function relationships in food systems and their changes in processes; \circ risk analysis for food machines. Making informed judgements and choices o Ability to correctly carry out the research for mechanical and plant solutions that are appropriate to change the characteristics and quality of foodstuffs; ability to correctly guide the choice of suitable technical solutions to monitor the characteristics and quality of food products during processing; ability to evaluate technical and plant choices related to the environmental sustainability of primary production, with particular reference to wastewater purification and by-products recoverying. Communicating knowledge and understanding

Ability to establish a professional dialogue with other professionals and operators in the industry, with particular reference to the basic design

testing of plants. Copacities to continue learning a Ability to develop and update knowledges of machines and plants for primary products, wastewater purification, waste management and byproduct recoverying. 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) Presentation of the course and brief history of the food plants Introduction: the disciplines of "Food processing plants" Interval to the processing of the productivity. Course program Bibliography Lecture notes. De Lecture notes. De Vita, G. De Vita, "MANUALE DI MECCANICA ENOLOGICA". URRICO HOEPLI MILANO (2007). THE EXTRA-VIRGIN OLIVE OIL HANDBOOK (John Wiley & Sons, Ltd. 2014). Alfa-Laval, Dairy Handbook, Alfa-Laval, Food Engineering AB, P.O. Box 65, S-221 00 Lund, Sweden. The texts are reference both for theoretical and practical aspects. The course topics will be explained by using Power Point presentations of the final attainment and is valid for one academic year. The evaluation of the students is accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The frants are monists of an oral test concerning the thooretical and practical aspects. The roal examinations are public. The vita and practice lessons. The evaluation of the students accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the sudents' accomplishment is expressed by a vote of thirty. The partia		of processing industries, the definition of production levelts, and the
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	 Description of the layouts studied during the course.
	Knowledge and applied comprehension ability
	 Machine selection criteria and layout according to the examples presented as case studies;
	 Making of machine sizing calculations using the methods of
	theoretical-practical lessons and exercises.
	Autonomy of judgement
	 Proposals of changes in layouts based on the quantitative, qualitative and ecological requirements of the studied transformations.
	Communication skills
	 Ability to develop relationships and professional collaborations.
	Learning ability
	 Ability to extend the acquired knowledge to untreated food lay out and processes.
Further information	Visiting hours: Monday-Friday from 10.00 to 12.00 by appointment

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