General Information	
Academic subject	Food preserved technology (I.C. Cereal and food preserves technologies)
Degree course	Food Science and Technology (LM70)
ECTS credits	5 ECTS
Compulsory attendance	No
Teaching language	Italian

Subject teacher	Name Surname	Mail address	SSD
	Carmine Summo	carmine.summo@uniba.it	AGR/15

ECTS credits details		
Basic teaching activities	4 ECTS Lectures	1 ECTS Laboratory or field classes

Class schedule	
Period	I semester
Course year	First
Type of class	Lectures and workshops

Time management	
Hours	125
In-class study hours	46
Out-of-class study hours	79

Academic calendar	
Class begins	October 12th, 2020
Class ends	January 22th, 2021

Syllabus	
Prerequisites/requirements	Knowledge of the unit operations of food technology and of the machines for the food industry. Knowledge of the food composition and constituents
Expected learning outcomes	*Knowledge and understanding* ○ Knowledge of the technological process of the main preserved and semi-preserved foods and ability to understand the technological steps that are influent on the quality characteristics of the preserved foods. ○ Knowledge of the legal aspects linked to the commercialization and labelling of the main preserved foods. ○ Knowledge of the analytical methods applied for the determination of the quality characteristics of the preserved. *Applying knowledge and understanding* ○ Ability to define the technological parameters and the effect on the composition, structure and properties of the foods. ○ Ability to apply the analytical procedures for the assessment of the quality parameters of the preserved foods. *Making informed judgements and choices* ○ Ability to choose the technological solutions able to produce high quality preserved and semi-preserved foods. ○ Ability to choose the analytical procedures and methods able to assess the quality parameters of the preserved foods. *Communicating knowledge and understanding*

	○ Ability to describe the technological processes and the process parameters to produce the main preserved foods. ○ Ability to describe the analytical procedures and methods able to assess the quality parameters of the preserved foods. *Capacities to continue learning* ○ Ability to deepen and upgrade their skills respect to the technological process on the main preserved foods and the legal aspect related to the commercialization 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	Preserved and semi-preserved foods definition according to Italian and European Community laws. The thermal treatments for the canned foods. Concept of F0 and its determination. Canned meat products: definition, classification and technological processes applied. Charcuteries: Definition and classification and processing of dry cured ham, cooked ham, fermented sausages and mortadella. Canned fish-based foods: Classification, composition and technological process Preserved fruit-based foods: Classification and processing of jams, marmalades and Canned fruit products. Juices and nectar: Definition and classification. Processing of apple juices, peaches and apricots nectars, citrus juices. Preserved tomato-based foods: Shelled tomato, tomato paste, tomato juices and Ketchup (definition, classification and processing).
Course program	
Reference books	Notes of the lectures distributed during the course (all the support materials are available online by means of the Edmodo educational network). • Pompei C. La trasformazione industriale di frutta e ortaggi. Tecnologie per la produzione di conserve e semiconserve. Ed. Edagricole 2005. • Handbook of Meat Processing. Blackwell Publishing, 2010 • Processing Vegetables: Science and Technology. Technomic Publishing CO., Inc, 1997. • Scientific Reviews • Cappelli P., Vannucchi V., Chimica degli alimenti. Conservazione e trasformazioni. Zanichelli (Bologna), 1994. • Cabras P., Martelli A., Chimica degli alimenti, Piccin (Padova), 2004.
Notes	
Teaching methods	The lectures will be presented through Power Point presentations, videos, laboratory exercitations and didactics visits to food companies. On-line platforms such as Edmodo, google drive, mailing list of students will be also used to provide didactic materials and to interact with the students.
Evaluation methods	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 Master 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 Master 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* ○ Describe the technological process of the main preserved and semi-preserved foods. ○ Describe the legal aspects linked to the commercialization and labelling of the main preserved foods. ○ Describe and apply the analytical methods for the determination of the quality characteristics of the preserved foods. *Applying knowledge and understanding* ○ Describe the influence of the technological parameters on the composition, structure and properties of the foods. ○ Describe the strategies needed for the set-up of the technological process of the main preserved foods. *Making informed judgements and choices* ○ Make reasonable hypothesis to modulate the technological parameters to produce high quality preserved and semipreserved foods. ○ Make reasonable hypothesis to choose the analytical procedures and methods able to assess the quality parameters of the preserved foods. *Communicating knowledge and understanding* ○ Describe the technological processes and the process parameters to produce the main preserved foods. ○ Describe the analytical procedures and methods able to assess the quality parameters of the preserved foods. *Capacities to continue learning* ○ Describe of the methods to deepen and upgrade their skills respect to the technological process on the main preserved foods and the legal aspect related to the commercialization
Receiving times	The teacher is available from Monday to Friday (10:00 am – 5:00 pm) only by appointment