

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	September 27 th , 2021
Class ends	January 21 th , 2022

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	<p><i>Knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ 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. <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ 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. <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> ○ 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. <p><i>Communicating knowledge and understanding</i></p>

	<ul style="list-style-type: none"> ○ 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. <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> ○ 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 <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 Science and Technology (expressed through the European Descriptors of the qualification)</p>
Contents	<p>Preserved and semi-preserved foods definition according to Italian and European Community laws.</p> <p>The thermal treatments for the canned foods. Concept of F0 and its determination.</p> <p>Canned meat products: definition, classification and technological processes applied.</p> <p>Charcuteries: Definition and classification and processing of dry cured ham, cooked ham, fermented sausages and mortadella.</p> <p>Canned fish-based foods: Classification, composition and technological process</p> <p>Preserved fruit-based foods: Classification and processing of jams, marmalades and Canned fruit products.</p> <p>Juices and nectar: Definition and classification. Processing of apple juices, peaches and apricots nectars, citrus juices.</p> <p>Preserved tomato-based foods: Shelled tomato, tomato paste, tomato juices and Ketchup (definition, classification and processing).</p>
Course program	
Reference books	<p>Notes of the lectures distributed during the course (all the support materials are available online by means of the Edmodo educational network).</p> <ul style="list-style-type: none"> • 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	<p>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.</p>
Evaluation methods	<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 Master 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 Master Degree in Food Science and Technology.</p> <p>Non-Italian students may be examined in English language, according to the aforesaid procedures.</p>
<p>Evaluation criteria</p>	<p><i>Knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ 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. <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ 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. <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> ○ 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. <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ 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. <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> ○ 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
<p>Receiving times</p>	<p>The teacher is available from Monday to Friday (10:00 am – 5:00 pm) only by appointment</p>