

General Information	
Academic subject	Food Preserves Technology (I. C.: Food technologies I)
Degree course	Food Science and Technology (LM70)
ECTS credits	6 ECTS
Compulsory attendance	No
Teaching language	Italiano

Subject teacher	Name Surname	Mail address	SSD
	<b>Carmine Summo</b>	<a href="mailto:carmine.summo@uniba.it">carmine.summo@uniba.it</a>	AGR/15

ECTS credits details	
Basic teaching activities	5 ECTS Lectures   1 ECTS Laboratory or field classes

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

Time management	
Hours	150
In-class study hours	54
Out-of-class study hours	96

Academic calendar	
Class begins	October 8 <sup>th</sup> , 2018
Class ends	January 25 <sup>th</sup> , 2019

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"> <li>○ 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</li> <li>○ Knowledge of the legal aspects linked to the commercialization and labelling of the main preserved foods</li> <li>○ Knowledge of the analytical methods applied for the determination of the quality characteristics of the preserved foods</li> </ul> <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Ability to define the technological parameters as a function of the effect on the composition, structure and properties of the foods</li> <li>○ Ability to applied the analytical procedures for the assessment of the quality parameters of the preserved foods</li> </ul> <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> <li>○ Ability to choose the technological solutions able to produce high quality preserved and semi-preserved foods</li> <li>○ Ability to choose the analytical procedures and methods able to assess the quality parameters of the preserved foods</li> </ul> <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Ability to describe the technological processes and the process parameters for the production of the main preserved foods</li> <li>○ Ability to describe the analytical procedures and methods</li> </ul>

	<p>able to assess the quality parameters of the preserved foods</p> <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> <li>○ 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</li> </ul>
Contents	<p>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.</p> <p>Canned meat products: definition, classification and technological processes applied.</p> <p>Charcuteries: Definition and classification of charcuteries. Classification and processing of dry cured ham, cooked ham, fermented sausages and mortadella.</p> <p>Processing of some Italian sausages DOP and IGP.</p> <p>Meat extracts and substitutes, Bouillon Cubes.</p> <p>Preserved fish-based foods: Classification, composition and shelf-life of fish products. Storage of fish products by refrigeration, fermentation and smoking. Canned tuna processing. Assessment of the technological quality of fish.</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> <p>In-oil and in-vinegar vegetable foods: Processing technologies, quality parameters and their determination</p>
<b>Course program</b>	
Reference books	<ul style="list-style-type: none"> <li>• Notes of the lectures distributed during the course (all the support materials are available online by means of the Edmodo educational network).</li> <li>• Pompei C. La trasformazione industriale di frutta e ortaggi. Tecnologie per la produzione di conserve e semiconserve. Ed. Edagricole 2005.</li> <li>• Handbook of Meat Processing. Blackwell Publishing, 2010</li> <li>• Processing Vegetables: Science and Technology. Technomic Publishing CO., Inc, 1997.</li> <li>• Scientific Reviews</li> <li>• Cappelli P., Vannucchi V., Chimica degli alimenti. Conservazione e trasformazioni. Zanichelli (Bologna), 1994.</li> <li>• Cabras P., Martelli A., Chimica degli alimenti, Piccin (Padova), 2004.</li> </ul>
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</p>

	<p>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"> <li>○ Describe the technological process of the main preserved and semi-preserved foods</li> <li>○ Describe the legal aspects linked to the commercialization and labelling of the main preserved foods</li> <li>○ Describe and apply the analytical methods for the determination of the quality characteristics of the preserved foods</li> </ul> <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Describe the influence of the technological parameters on the composition, structure and properties of the foods</li> <li>○ Describe the strategies needed for the set-up of the technological process of the main preserved foods.</li> <li>○ foods</li> </ul> <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> <li>○ Make reasonable hypothesis to modulate the technological parameters to produce high quality preserved and semi-preserved foods</li> <li>○ Make reasonable hypothesis to choose the analytical procedures and methods able to assess the quality parameters of the preserved foods</li> </ul> <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Describe the technological processes and the process parameters for the production of the main preserved foods</li> <li>○ Describe the analytical procedures and methods able to assess the quality parameters of the preserved foods</li> </ul> <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> <li>○ 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</li> </ul>
<p>Receiving times</p>	<p>Tutorial activities: from Monday to Friday by appointment only</p>