

General Information	
Academic subject	Certifications of quality and food safety (I.C. Food quality certifications and analyses)
Degree course	Bachelor programme: Food Science and Technologies
ECTS credits	6 ECTS
Compulsory attendance	No
Teaching language	Italian

Subject teacher	Name Surname	Mail address	SSD
	Antonella Pasqualone	antonella.pasqualone@uniba.it	AGR 15

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

Class schedule	
Period	Semester
Course year	Third
Type of class	Lectures – discussion of case studies – technical visits to food industries

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

Academic calendar	
Class begins	February 25 th , 2019
Class ends	June 7 th , 2019

Syllabus	
Prerequisites/requirements	Prerequisites: “Chemistry” Knowledge about food quality and causes of food alteration
Expected learning outcomes	<p><i>Knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ Knowledge and understanding about main food safety rules and fundamental concepts and methods of quality management in food industry <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ Ability to apply risk analysis and to use appropriate tools for quality control and management in the food industry <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> ○ Ability to analyze a productive process and to properly program actions and interventions to manage quality and safety in the food industry <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ Ability to communicate at company level and to third parties the technical choices made to manage quality and safety in the food industry <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> ○ Ability to deepen and update the knowledge regarding the management of quality and safety in the food industry <p>The learning outcomes, in terms of knowledge and ability, are detailed in the Regulation of Bachelor in Food Science and Technology - Annex A (expressed by European descriptors in the framework of food technology field).</p>
Contents	<ul style="list-style-type: none"> • HACCP method. Evolution of current rules about HACCP. Concepts of hazard and risk. Principles of HACCP method. General

	<p>procedures. Practical examples and case of study of HACCP systems in different food sectors. Structure and set up of HACCP handbooks. Case of study about the subject. Check list on topics discussed.</p> <ul style="list-style-type: none"> • Evolution of quality control. Classification of certifications in the agri-food sector. Series 9000 ISO standards. Revisions of ISO rules and their evolution. Principles and structure of ISO standard 9001:2000. PDCA cycle. Case of study: Qualification and selection of suppliers. Document identification. Case of study: Structure and set up of Quality Management handbooks. Concepts of control, non conformity, corrective action, preventive action, audit. Case study about audit procedure. Check list on topics discussed. • Procedures of certification of company management systems. Audit procedures. Major and minor non conformities, recommendations. Audit report. Accreditation of certification bodies. Laboratories of quality control. Calibration and metrological check. Check list on topics discussed. • Product certifications. Basic elements of productive technical sheet. Certifications of typicality. Rules of reference and their evolution. Procedure to set up a typicality mark and technical sheet, with practical examples related to Apulian foodstuffs. De.C.O. marks. Case of study: technical sheet set up. Check list on topics discussed. • Food traceability according to ISO 22005. Concept of tracing and tracking. Systems to manage traceability within a single organization and throughout the food chain. Compulsory and voluntary rules and their evolution. Case of study: set up of Traceability handbooks. Check list on topics discussed. • Food safety and Series 22000 ISO standards. Procedures of BRC Regulation and IFS Standard. Case of study: CCPs and Operative Pre-requisites. Check list on topics discussed.
Course program	
Reference books	<ul style="list-style-type: none"> • Notes of the lectures distributed during the course (all the support materials are available online by means of the Edmodo educational network). • C. Peri, V. Lavelli, A. Marjani. Qualità nelle aziende e nelle filiere agro-alimentari. Hoepli Ed., 2004. • C. Peri. Qualità: concetti e metodi. Franco Angeli Ed., 1998. ISBN 88-204-8919-8. • S. Ciappellano. Manuale della ristorazione. Casa Editrice Ambrosiana, 2009. <p><i>Additional readings:</i></p> <ul style="list-style-type: none"> • L. Bacci, S. Rabazzi. Il manuale della rintracciabilità. EPC Libri Ed., 2007. • P. Venturi. Il Manuale Integrato della Qualità. Ed. Il Sole 24 ore, 1998, ISBN 88-7187-867-1. • A. Galgano. La qualità totale. Ed. Il Sole 24 ore, 2000, ISBN 88-7187-307-6. • Cancellieri, F. Italia, G. Manzone. Procedure gestionali per il laboratorio di analisi degli alimenti. Ed. Cavallotto, 1999, ISBN 88-86803-30-3. • R. Bonsi, C. Galli. Il metodo HACCP. Ed. Il Sole 24 ore, 2000, ISBN 88-324-4023-7. • A. Clerici, V. Rubino. La nuova disciplina comunitaria sull'igiene delle produzioni alimentari. Taro editore, 2005, ISBN 88-87359-33-4.
Notes	
Teaching methods	Lectures (Power Point presentations) – discussion of case studies – technical visits to food industries

	Lecture notes and educational supplies will be provided by means of a mailing list or online platforms (i.e.: Edmodo, Google Drive...)
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 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"> ○ Prove to know and having understood the main food safety rules and the fundamental concepts and methods of quality management in food industry <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ Prove to be able to apply risk analysis and to use appropriate tools for quality control and management in the food industry <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> ○ Prove to be able to analyze a productive process and to properly program actions and interventions to manage quality and safety in the food industry <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ Prove to be able to communicate at company level and to third parties the technical choices made to manage quality and safety in the food industry <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> ○ Prove to be able to deepen and update the knowledge regarding the management of quality and safety in the food industry
Receiving times	Monday-Friday by previous agreement by e-mail