General Information	
Academic subject	Nutrition and Nutrition education (I.C. Food Safety, Nutrition and Nutrition education)
Degree course	Bachelor programme: Food Science and Technology
ECTS credits	3 ECTS
Compulsory attendance	No
Teaching language	Italian

Subject teacher	Name Surname	Mail address	SSD
	Maria Teresa Balducci	mariateresabalducci@gmail.com	MED/49

ECTS credits details		
Basic teaching activities	2 ECTS Lectures	1 ECTS Laboratory or field classes)

Class schedule	
Period	II semester
Course year	Third
Type of class	Lectures Practical classes with, if necessary, projection of educational videos Practical classes consisting in the discussion of cases-study

Time management	
Hours	75
In-class study hours	30
Out-of-class study hours	45

Academic calendar	
Class begins	February 24th, 2020
Class ends	June 12th, 2020

Syllabus	
Prerequisites/requirements	Knowledge of basic microbiology and microbiology applied to food and beverages
Expected learning outcomes	*Knowledge and understanding* ○ Knowledge of biochemistry that is the basis of various processes such as the transmission of nerve impulses, blood circulation, respiration, assimilation and digestion of nutrients, excretory system, and thermoregulation. *Applying knowledge and understanding* ○ To prevent food-born diseases *Making informed judgements and choices* ○ To acquire information needed for actions aiming to improve food education *Communicating knowledge and understanding* ○ Ability to describe the physiological and pathological characteristics of neuroendocrine and digestive systems; Ability to communicate the consequences of lack of macro or micronutrient overtake. *Capacities to continue learning* ○ Ability to improve knowledge for solving food overtake or undertake issues. 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	Anatomy and physiology control to Gastrointestinal system, thyroid, hypothalamus. Definition of different groups of nutrients: Macronutrients, Micronutrients. Guidelines for a healthy diet. Effects of nutrition on phenotype (Obesity and Childhood obesity, Diet in Pregnancy, Power sportsman, Dyslipidemia and cardiovascular diseases, Nutrition in the elderly)
Course program	
Reference books	Notes from lectures and laboratory classes. Presentations (in pdf) provided by the teacher. Additional readings • Eileen Behan "Therapeutic Nutrition. A Guide to Patient Education"Springhouse Publishing , 2005 • Isobel R. Contento "Nutrition Education: Linking Research, Theory, and Practice" 2015
Notes	
Teaching methods	Lectures will be presented through PC assisted tools (Powerpoint) and slide projector. Projection of educational videos and practical classes (ranging from a total of 2 to 5 hours) consisting in the discussion of cases-study are also included as supplementary teaching method. Powerpoint presentations, in pdf format, will be shared with students through a mailing list. A dedicated mailing list will be created for interaction with 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 Bachelor 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 Bachelor 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* ○ To describe the functioning of the gastrointestinal tract and the neuro-endocrine system; Describe the absorption of foods and their metabolism. Know about pathologies related to a poor diet. *Applying knowledge and understanding* ○ Describe how the food technician can intervene by enriching some foods to correct any food deficiencies (iodinated salt, selenium potato ...) *Making informed judgements and choices* ○ To describe how to take action to improve the quality of life *Communicating knowledge and understanding* ○ To describe the physiological and pathological characteristics of neuroendocrine and digestive systems; Ability to communicate the consequences of lack or overtake of macro or micronutrients. *Capacities to continue learning* ○ To describe how you can finalize your knowledge to solve new pathological risks in unbalanced diets
Receiving times	From Monday to Friday by appointment only