

Syllabus

Course description

Course title	Nutrition and Health: the Functional Foods
Course code	43066
Scientific sector	AGR/16 , Agriculture Microbiology
Degree	Bachelor in Scienze Agrarie e Agroambientali
Semester	
Year	II, III
Academic year	2018/19
Credits	3
Modular	no

Total lecturing hours	20
Total lab hours	
Total exercise hours	10
Attendance	Not compulsory
Prerequisites	
Course page	

Specific educational objectives	<p><i>This course provides insights concerning the manufacture and the nutritional and healthy features of functional foods. In particular, it shows how to project different varieties of functional foods using selected microorganisms.</i></p> <p><i>The course consists of one module of 30 hours of frontal lectures and exercises.</i></p> <p><i>After defining the significance and the nutritional features of fermented functional foods and after giving some insights on the physiology and biochemistry of lactic acid bacteria, the course will provide the biotechnology knowledge for projecting and making functional foods. The course will provide examples of natural, fortified, enriched and modified functional foods of both vegetable and animal origins. The course has the educational objective to address the students to manage with the industrial applied biotechnology.</i></p>
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Lecturer	Andrea Polo
Scientific sector of the lecturer	AGR/16 Agriculture Microbiology
Teaching language	English
Office hours	Monday to Friday by appointment
Teaching assistant (if any)	

Office hours	
List of topics covered	<p><i>The course will cover the following topics:</i></p> <ul style="list-style-type: none"> - <i>Biochemistry and Physiology of Lactic acid Bacteria</i> - <i>Food Microbiology</i> - <i>Set-up of Food Processing</i> - <i>Biotechnology strategies for Functional Foods Products</i>
Teaching format	<p><i>The course consists of lectures where the topics are presented by the professor. Course topics are presented at the blackboard and using electronic slides. Teaching material and additional materials are provided by the Professor at the beginning of each lectures.</i></p>
Learning outcomes	<p><i>Through the study and the application of the topics presented during lectures, students have to achieve:</i></p> <ol style="list-style-type: none"> <i>1. knowledge and understanding of the fundamentals of the manufacture and nutritional features of functional foods;</i> <i>2. the capacity to manage and to solve food related processing;</i> <i>3. how to develop an idea (concept) into a market product;</i> <i>4. the capacity of showing concepts achieved in the course.</i>
Assessment	<p><i>The assessment of the student preparation is through an oral exam. The oral assessment includes questions to assess the knowledge and understanding of the course topics and questions designed to assess the ability to transfer these skills to case studies and practical applications.</i></p> <p><i>Questions on practical applications also assess the ability of the student to apply the knowledge and understanding of the course topics, the ability to make judgments and finally, the student communication skills.</i></p>
Assessment language	<i>English</i>
Evaluation criteria and criteria for awarding marks	<p><i>Students are asked to attend the oral exam.</i></p> <p><i>It is relevant for the oral exam to: master the specific language (also with respect to teaching language); prove the understanding of the topics and learning skills; evaluate and establish relationships between topics; grow specific skills in critical thinking.</i></p> <p><i>The exam mark will be assessed as follows: oral exam.</i></p>
Required readings	<p><i>The professor will provide the specific materials (articles, specific chapters from books) for each subject of the course. Lecture notes are strongly recommended as a study material.</i></p>
Supplementary readings	