

Syllabus

Course description

Course title	The technological transfer within the agricultural science: from the theory to market products
Course code	46026
Scientific sector	AGR/16 Agriculture Microbiology
Degree	PhD in Mountain Environment and Agriculture
Semester	II
Year	<i>I, II, III</i>
Academic year	2016/17
Credits	3
Modular	<i>no</i>

Total lecturing hours	30
Total lab hours	
Total exercise hours	
Attendance	Not compulsory
Prerequisites	
Course page	

Specific educational objectives	<i>This course provides several examples, in term of case studies, of technological transfer in agriculture. In particular, it shows how the concept (theory) is transformed into market products.</i> <i>The course consists of one module of 30 hours of frontal lectures.</i> <i>The case of studies regard cereal-baked goods, gluten-free products, agriculture by-products (grape must and wheat germ), plant fermentation foods and dairy products. For each of these case studies, the technological transfer considers the following steps: theory, laboratory experiments, validation through in vitro, ex vivo and in vivo challenges, publication/patenting, industrialization and marketing of the products. The course has the educational objective to address the students to manage with the industrial applied technology.</i>
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Module 1	
Lecturer	<i>Marco Gobetti</i>
Scientific sector of the lecturer	AGR/16 Agriculture Microbiology
Teaching language	English

Office hours	Monday to Thursday by appointment
Teaching assistant (if any)	
Office hours	
List of topics covered	<i>The course will cover the following topics:</i> - Food Microbiology - Set-up of Food Processing - Biotechnology strategies for Food Products
Teaching format	<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>
Learning outcomes	<i>Through the study and the application of the topics presented during lectures, students have to achieve:</i> <i>1. knowledge and understanding of the fundamentals of food processing;</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	<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> <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>
Assessment language	<i>English</i>
Evaluation criteria and criteria for awarding marks	<i>Students are asked to attend the oral exam.</i> <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> <i>The exam mark will be assessed as follows: oral exam</i>
Required readings	<i>Depending on the case studies, the professor provides the related scientific articles and/or patents. The supply of the articles/patents is done at the beginning of each lecture and corresponding to each case studies.</i>

Supplementary readings	
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