Freie Universität Bozen
Libera Università di Bolzano
Università Liedia de Bulsan

Syllabus
Course description

Course title	Food-human axis: the gut microbiome
Course code	46029
Scientific sector	AGRI-08/A
Degree	PhD in Food Engineering and Biotechnology
Semester	2
Year	1
Academic year	2024/2025
Credits	3
Modular	NO

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

Specific educational objectives	This course provides several examples, in term of case studies, of the effect of the diet and functional foods on the human gut microbiome. The course consists of one module of 30 hours of frontal lectures. The cases of studies regard the effect of the dietary I habits, including the Mediterranean diet, fibers, functional foods and other nutrients on the microbiota composition, functionality and metabolome. The course has the educational objective to address the students to manage with the general microbiology and in particular with the conditioning and monitoring of the human gut microbiota diversity and its repercussion on the human well-being.

Lecturer	Ali Zein Alabiden Tlais
Scientific sector of the lecturer	AGRI-08/A
Teaching language	English
Office hours	Monday to Friday by appointment
Teaching assistant (if any)	-
Office hours	9
List of topics covered	The course will cover the following topics: - General Microbiology

	- High throughput sequencing - Microbiome conditioning - metabolome characterization
Teaching format	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.

Learning outcomes	Through the study and the application of the topics presented during lectures, students have to achieve: - knowledge and understanding of the fundamentals of general microbiology; - the capacity to manage the conditioning and monitoring of the human gut microbiota diversity and its repercussion on the human well-being.

Assessment	The assessment of the student preparation is through an oral exam. The oral assessment includes: (0) the presentation, by the students, of a scientific work related to the topics of the course, (il) questions to assess the Knowledge and understanding of the course topics, and III) questions designed to assess the ability to transfer these skills to case studies.
Assessment language	English
Evaluation criteria and criteria for awarding marks	Students are asked to attend the oral exam. It is relevant for the 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. The exam mark will be assessed as follows: oral exam

Required readings	Depending on the case studies, the professor provides the related scientific articles. The supply of the articles is done at the beginning of each lecture and corresponding to each case studies
Supplementary readings	----