

## Modern Aspects of Food (0000159)

Due to Covid 19, the education and assessment methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

<b>Course size</b>	<i>(nominal values; actual values may depend on programme)</i>		
<b>Credits 4.0</b>	<b>Study time 120 h</b>	<b>Contact hrs</b>	45.0h

### Course offerings and teaching methods in academic year 2021-2022

A (semester 2)	English	Incheon	group work	6.0h
			lecture	25.0h
			practicum	6.0h
			seminar	8.0h

### Lecturers in academic year 2021-2022

Van Haute, Sam	KR01	lecturer-in-charge
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### Offered in the following programmes in 2021-2022

	crdts	offering
<a href="#">Bachelor of Science in Environmental Technology</a>	4	A
<a href="#">Bachelor of Science in Food Technology</a>	4	A
<a href="#">Bachelor of Science in Molecular Biotechnology</a>	4	A
<a href="#">Joint Section Bachelor of Science in Environmental Technology, Food Technology and Molecular Biotechnology</a>	4	A

### Teaching languages

English

### Keywords

Food science, food composition, food microbiology, food safety and quality, food additives

### Position of the course

This course introduces students to the basic concepts of food science: composition of foods, food fermentation, food safety, food quality, food additives, food preservation, functional foods, and the relationship between food and environment.

### Contents

- What is food science?
- Careers in food science and technology
- Food categories, composition, and nutrition
- Food microbiology: structure, safety, spoilage, fermentation
- Food safety and quality
- Food preservation
- Food additives
- Functional foods: reformulation, micronutrient fortification

### Initial competences

Students need to have taken: General Biology, Inorganic Chemistry I and II, Organic Chemistry I, Introduction to Biochemistry: Biomolecules

### Final competences

- 1 Understand the basic principles of food science and gain an appreciation of the scope and breadth of the field of Food Science
- 2 Know the different food commodities and their compositions
- 3 Discuss the use of microbiology in the production of food and food components and learn the basics about the impact of microbiology on food safety and spoilage
- 4 Understand how food needs to be preserved in order to guard its safety and

quality

5 Know different aspects of functional foods: reformulation and fortification

6 Utilize oral and written skills to communicate thoughts, information and solutions to food science and technology issues

#### **Conditions for credit contract**

Access to this course unit via a credit contract is unrestricted: the student takes into consideration the conditions mentioned in 'Starting Competences'

#### **Conditions for exam contract**

This course unit cannot be taken via an exam contract

#### **Teaching methods**

Practicum, Group work, Seminar, Lecture

#### **Extra information on the teaching methods**

##### **Course group work**

- **Selfstudy in Group.** Groups of students get an assignment to learn about a specific food product. A different aspect is explained weekly (nutrition, production, process, environmental impact and improvement). Every week the students report on this specific aspect and answer some questions in the report.
- **Final Report and presentation.** The students make a final report in groups and present the aspects of the food product to the class

#### **Learning materials and price**

Slides are available on Ufora

#### **References**

#### **Course content-related study coaching**

email and appointment through email

#### **Assessment moments**

end-of-term and continuous assessment

#### **Examination methods in case of periodic assessment during the first examination period**

Written examination with multiple choice questions, Written examination with open questions

#### **Examination methods in case of periodic assessment during the second examination period**

Written examination with multiple choice questions, Written examination with open questions

#### **Examination methods in case of permanent assessment**

Report, Participation, Oral examination

#### **Possibilities of retake in case of permanent assessment**

examination during the second examination period is not possible

#### **Calculation of the examination mark**

Final Written Examination	60%
Written examination with multiple choice questions	15%
Lab + Group work (Report, Participation, Oral)	25%