

Course Specifications

Valid as from the academic year 2020-2021

Biomedical Physiology (C002369)

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

Course size (nominal values; actual values may depend on programme)
Credits 5.0 Study time 145 h Contact hrs 57.0 h

Course offerings and teaching methods in academic year 2020-2021

A (semester 2)	Dutch	Gent	practicum	31.25 h
			lecture	25.0 h
			online lecture	0.0 h

Lecturers in academic year 2020-2021

de Graaf, Dirk WE10 lecturer-in-charge

Offered in the following programmes in 2020-2021

	crdts	offering
Bachelor of Science in Biochemistry and Biotechnology	5	A
Linking Course Master of Science in Biochemistry and Biotechnology	5	A

Teaching languages

Dutch

Keywords

Physiology, skin, muscles, nerves, sense-organs, hormones, blood, hart, lymph, respiration, digestion, excretion, reproduction

Position of the course

The physiology of man is the study of the functions of the human body. In the course we will focus on the physiology of the organs. Although the subject-matter of tuition will be presented starting from the different organs or systems, their mutual interactions will also be covered. We will also stand still at the pathophysiology or the study of effects of diseases/affections on the functions of the systems or organs.

Contents

Chapter 7: Endocrine System
Chapter 8: Neurons
Chapter 9: The Central Nervous System
Chapter 10: Sensory Physiology
Chapter 11: Autonomic and Somatic Motor Control
Chapter 12: Muscles
Chapter 14: Cardiovascular Physiology
Chapter 15: Blood Flow and Blood Pressure
Chapter 16: Blood
Chapter 17: Mechanics of Breathing
Chapter 18: Gas Exchange and Transport
Chapter 19: The kidneys
Chapter 20: Fluid and Electrolyte Balance
Chapter 21: Digestive System
Chapter 24: Immune System
Chapter 25: Reproduction and Development

Initial competences

Knowledge of Biodiversity in the Animal Kingdom, Cell Biology, Biochemistry, Physics.

Final competences

- 1 Insights into the function of the human body, the interactions between the different organs and the origin and consequences of certain diseases/affections.
- 2 The integrative character of this course is an ideal opportunity to teach students how

to make links between different fields.

- 3 The student acquires the necessary basis to follow more specialized physiological courses as Immunology, Neurobiology, Endocrinology and Pathophysiology and can place this knowledge in the context of the whole organism.
- 4 Through the Practical Exercises students develop an independent problem solving attitude.
- 5 In addition, the student acquires a good basis for future research in animal physiology.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Lecture, practicum, online lecture

Learning materials and price

Siverthorn et al. (2013) Human Physiology: an integrated approach. Sixth Edition. (Cost: about 70 Euro)

References

Course content-related study coaching

Contacts with the doctor-assistent and assistent.

Evaluation methods

end-of-term evaluation and continuous assessment

Examination methods in case of periodic evaluation during the first examination period

Written examination, oral examination

Examination methods in case of periodic evaluation during the second examination period

Written examination, oral examination

Examination methods in case of permanent evaluation

Participation, job performance assessment, report

Possibilities of retake in case of permanent evaluation

examination during the second examination period is not possible

Extra information on the examination methods

Written exam with the possibility of oral elucidation.

Calculation of the examination mark

Practicum: 2/20

Theory: 18/20