Course syllabus for

Physiology, 13 credits

Fysiologi, 13 hp
This course syllabus is valid from spring 2020.
Please note that the course syllabus is available in the following versions:
Spring2019 , Spring2020 , Spring2023

Course code	1BI046
Course name	Physiology
Credits	13 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedicine
Level	G2 - First cycle 2
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Physiology and Pharmacology
Decided by	Programnämnden för biomedicinprogrammen
Decision date	2018-10-30
Revised by	Programme committee for study programmes in biomedicine
Last revision	2019-10-21
Course syllabus valid from	Spring 2020

Specific entry requirements

At least grade pass (G) at the courses Introduction to biomedical science; General and organic chemistry; Cell-, stem cell and developmental biology; Biochemistry; Genetics, genomics and functional genomics; Chemical biology; and Tissue biology, and at least grade pass (G) at the parts Laboratory work and seminars (4 credits) and Project work (2 credits) of the course in Immunology and microbiology, and the part Practical features (4 credits) of the course Neuroscience, at the Bachelor's programme in Biomedicine.

Objectives

Upon completion of the course, the student should be able to:

Regarding knowledge and understanding

- describe the physiological state and homeostasis mechanisms in the human body,
- explain how selected diseases develop, and how they are diagnosed and treated,
- account for basic anatomical structures in the various organ systems,
- provide a general account for how the various organ systems are regulated,

- provide a general account for how intracellular signaling occurs in various specialised cells,

Regarding competence and skills

- demonstrate an ability to perform practical assessments of the functions of the various organ systems in the body, and how they communicate with each other,
- identify relevant original and overview articles dealing with specific topics in physiology, and analyse and consolidate these,

Regarding judgement and approach

- take into account ethical considerations in research on humans.

Content

The course focuses on physiological principles and regulatory mechanisms within the following areas: membranes and nerves; autonomic nervous system; muscle (skeletal, heart, and smooth muscle); heart and circulation; respiration; kidney, fluid and electrolyte balance, acid-base control; gastrointestinal tract; endocrinology and reproduction; regulation of body temperature; exercise physiology; environmental physiology.

Integration of practical features, 4.0 hp

Grading scale: GU

Laboratory practicals and seminars.

Project work, 2.0 hp

Grading scale: GU

The project work involves searching, analysing and summarising current literature, ending in an oral presentation.

Integration of the course contents, 7.0 hp

Grading scale: VU

Teaching methods

Teaching will be in the form of lectures, laboratory practicals, seminar work and a project that serve to describe and illustrate the functional characteristics of the different organ systems.

Examination

Integration of practical features (4 credits). The examination consists of oral presentations. Graded Fail/Pass.

Project work (2 credits). The examination consists of an oral presentation. Graded Fail/Pass.

Integration of the course contents (7 credits). The examination consists of a written exam. Graded Fail/Pass/Pass with distinction.

The final grade for the whole course is based on the grade for the part Integration of the course contents. To obtain the grade Pass (Pass) in the whole course, the grade pass must have been obtained for the other parts on the course.

Compulsary participation
Laboratory practicals and seminars are compulsory. The course director assesses if and, in that case, how absence can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the course director's instructions, the student's results for respective part will not be registered in LADOK. Absence from a compulsory activity may result in that the student cannot compensate the absence until the next time the course is given.

If there are special grounds, or a need for adaptation for a student with a disability, the examiner may decide to deviate from the syllabus's regulations on the examination form, the number of examination opportunities, the possibility of supplementation or exemptions from the compulsory section/s of the course etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities may not be changed, removed or reduced.

Limited number of examinations
Students who have not passed the regular examination are entitled to participate in five more examinations. If the student has failed six examinations/tests, no additional examination or new admission is provided.

The number of times that the student has participated in one and the same examination is regarded as an examination session. Submission of a blank examination is regarded as an examination. An examination, for which the student registered but not participated in, will not be counted as an examination.

Transitional provisions

After each course occasion there will be at least six occasions for the examination within a two-year period from the end of the course.

Other directives

The course language is English.

Course evaluation will be carried out in accordance with the guidelines established by the Board of Higher Education.

Oral evaluation in the form of course council meetings will be carried out during the course.

Literature and other teaching aids

Mandatory literature

Costanzo, Linda S.

Physiology

5. ed. : Philadelphia, Pa : Saunders Elsevier, cop. 2014 - xi, 502 s.
ISBN:9781455708475 LIBRIS-ID:14795432
Library search