



**Karolinska
Institutet**

Course syllabus for

General Anatomy and Physiology, 9 credits

Allmän anatomi och fysiologi, 9 hp

This course syllabus is valid from autumn 2021.

Please note that the course syllabus is available in the following versions:

Autumn2019 , Autumn2021 , Autumn2022

Course code	1OP067
Course name	General Anatomy and Physiology
Credits	9 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	GX - First cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Clinical Neuroscience
Participating institutions	<ul style="list-style-type: none">• Department of Physiology and Pharmacology• Department of Neuroscience
Decided by	Utbildningsnämnden CNS
Decision date	2019-04-10
Revised by	Education committee CNS
Last revision	2021-03-24
Course syllabus valid from	Autumn 2021

Specific entry requirements

Natural sciences 2 (can be certified by Biology 1, Physics 1a / Physics 1b1 + 1b2, Chemistry 1),

Mathematics 2a / 2b / 2c. Or: Natural Sciences B (can be certified by Biology A, Physics A, Chemistry A), Mathematics B.

Objectives

After the course, the student should be able to

- (1) describe the main features in the structure of the cells, the tissues and the central nervous system in man,
- (2) describe the relationship between structure and function with respect to the cells, the tissues and the central nervous system
- (3) describe and identify the most important anatomical structures in the head and their relationships
- (4) describe the connection between the structure of the head, and common diseases in ear, nose and

throat

- (5) describe the basic functions of the cell and its electric properties,
- (6) describe the function of the muscles and the function of the nervous system with regard to motor function, sensory functions, and autonomous and higher brain functions, respectively,
- (7) describe the physiology of circulatory and respiratory organs,
- (8) describe how the kidneys control acid/base balance and fluid balance
- (9) describe how the endocrine system of the body functions
- (10) describe the function of the gastrointestinal canal.

Content

The course comprises

- (a) the structure of the cell at the microscopical level,
- (b) the body tissues with an emphasis on the nerve tissues,
- (c) the macroscopic structure of the central nervous system and the structure and function of the systems that are responsibility for different sensory functions apart from vision,
- (d) the anatomy of the head (the skull, the surface anatomy of the head, the vessels of the head and innervation and nose -/the mouth and throat),
- (e) the basic function and electric properties of the cell. This knowledge constitutes the basis for understanding the function of the nervous system in the following sections: muscle physiology and motor function, sensory and higher brain functions.
- (f) the autonomous nervous system and the endocrine systems of the body,
- (g) the areas of heart and circulation, respiration, kidney physiology including acid-base and fluid balance, and digestion.

The course is divided into the following two modules:

General Anatomy, 4.5 hp

Grading scale: VU

The module includes theoretical understanding of the course content a to d.

General Physiology, 4.5 hp

Grading scale: VU

The module includes theoretical understanding of the course content e to g.

Teaching methods

The teaching is based on an approach to learning in which the tasks provide opportunities for the students to take active responsibility for their learning. The used teaching methods are lectures and group assignments/ laboratory sessions/ demonstrations.

Examination

Module 1, General Anatomy examines the aims 1-4 in the following way:

- 1) Written examination (Fail/Pass/Pass with distinction)

Re-examination may take place orally.

The module is given the grade Fail, Pass or Pass with distinction. The grade of the module follows from the grade of the written examination.

Module 2, General Physiology examines the aims 5-10 in the following way:

- 1) Written examination (Fail/Pass/Pass with distinction)

Re-examination may take place orally.

The module is given the grade Fail, Pass or Pass with distinction. The grade of the module follows from the grade of the written examination.

Course grade

The entire course is given the grade Fail, Pass or Pass with distinction.

The grade Pass on the entire course requires Pass on both modules. Pass with distinction requires Pass with distinction on both module 1 and 2.

Possibility of exception from the course syllabus' regulations on examination

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 knowledge, skills and attitudes may not be changed, removed or reduced.

Transitional provisions

If the course is cancelled or goes through substantial changes, information about interim regulations will be stated here.

Other directives

Course evaluation takes place in accordance with KI's local guidelines. Compilation of the students' answers in course questionnaires and the course coordinator's analysis of these are published on KI's public course web.

Some teaching may be in English.

Literature and other teaching aids

Mandatory literature

Aldskogius, Håkan; Rydqvist, Bo

Den friska människan : anatomi och fysiologi

Första upplagan : Stockholm : Liber, [2018] - 476 sidor

ISBN:97891471105694 LIBRIS-ID:21774685

[Library search](#)

Recommended literature

Fysiologi

Lännergren, Jan; Westerblad, Håkan; Ulfendahl, Mats; Lundeberg, Thomas

Sjätte upplagan : Lund : Studentlitteratur, [2017] - 397 sidor

ISBN:9789144114859 LIBRIS-ID:19922136

[Library search](#)

Halsens och huvudets deskriptiva och topografiska anatomi

Albiin, Nils

Lund : Studentlitt., 1982 - 164, [9] s.

ISBN:91-44-17811-5 LIBRIS-ID:7276881

[Library search](#)