



**Karolinska  
Institutet**

Course syllabus for

## **Anatomy and Physiology, 13.5 credits**

Anatomi och fysiologi, 13.5 hp

This course syllabus is valid from autumn 2021.

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

Autumn2017 , Autumn2021 , Spring2022 , Autumn2024

Course code	1SJ019
Course name	Anatomy and Physiology
Credits	13.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	GX - First cycle
Grading scale	Pass, Fail
Department	Department of Laboratory Medicine
Decided by	Utbildningsnämnden NVS
Decision date	2017-04-25
Revised by	Education committee NVS
Last revision	2021-03-31
Course syllabus valid from	Autumn 2021

## **Specific entry requirements**

Admitted to the nursing programme. Specific entry requirements: Ma B, Sh A, Nk B (or Fy A, Ke A and Bi A).

## **Objectives**

The aim of the course is that the student should acquire knowledge of the human anatomy and physiology to be able to plan and implement nursing based on scientific based knowledge of the structure and function of the human body.

Intended learning outcomes

Knowledge and understanding

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

- Describe the structure of the human body on cell-, organs-, organ system- and organism level
- Account for the function of the human body on organs-, organ system- and organism level
- Explain the relationships between structure and function of the human body
- Explain how the different organ systems interact to maintain homeostasis

- Relate physiological examination methods to the function of the circulatory- and the respiratory organs

### Skill and ability

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

- carry out cardiopulmonary resuscitation (CPR)
- carry out pulse- and blood pressure measurement
- connect and carry out ECG registration
- register oxygen saturation in the blood with pulse oximeter
- account for spirometry measurements
- use correct anatomic terminology

### Judgement ability and approach

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

- identify and discuss carrying on equal terms connected to the above described skills
- identify and discuss quality and patient security of the above described skills
- reflect on recommendations on nutrition and physical activity and their connection to the concept health.

## Content

,

### **Anatomy and Physiology 1, 6.0 hp**

Grading scale: GU

In this module, the structure and function of the human body is studied, including changes over the life cycle.. In the module, evidence-based medicine and a scientific approach is introduced as a basis to understand the nursing need of people and to be able to plan and carry out nursing.

Basic cell biology, biochemistry and genetics. Structure, function and cooperation between the organ of the body:

- the nervous system
- the sensory organs
- The circulatory system
- The respiratory system

### **Anatomy and Physiology 2, 6.0 hp**

Grading scale: GU

In this part, the normal structure and function of the human body is studied, including changes over the life cycle. In the course, evidence-based medicine and a scientific approach is introduced as a basis to understand the nursing need of people and to be able to plan and carry out nursing.

Structure, function and cooperation between the organ of the body:

- The endocrine system
- gastrointestinal system
- kidneys and urinary tract

- the musculoskeletal system
- the skin
- the reproduction
- cooperation between organ systems to maintain homeostasis

## **Clinical skills, 1.5 hp**

Grading scale: GU

In this module, CPR and physiological examination methods are trained such as ECG, oxygen saturation, pulse- and blood pressure measurement and spirometry.

## **Other directives**

Course evaluation takes place in accordance with the guidelines established by the Board of Education.

## **Literature and other teaching aids**

*Sand, Olav*

### **Människokroppen : fysiologi och anatomi**

2. uppl. : Stockholm : Liber, 2007 - 544 s.

ISBN:9147084359 (inb.) LIBRIS-ID:10455726

[Library search](#)

### **Atlas över människokroppen**

*Vigué, Jordi; Martín Orte, Emilio; Ferrón, Miquel; Ferrón, Myriam*

*Dunder, Kristina*

2. uppl. : Stockholm : Liber, 2012 - 164 s.

ISBN:9789147105878 (inb.) LIBRIS-ID:12744910

[Library search](#)

*Lindskog, Bengt I.; Frank, Urban*

### **Medicinsk miniordbok**

6. uppl. : Stockholm : Norstedts akademiska förlag, 2005 - 508 s.

ISBN:91-7227-440-9 LIBRIS-ID:9863879

[Library search](#)