



Course syllabus for

# Human in Health and Disease 1, 10 credits

Människan i hälsa och sjukdom 1, 10 hp

This course syllabus is valid from autumn 2024.

Course code	1BL003
Course name	Human in Health and Disease 1
Credits	10 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	G1 - First cycle 1
Grading scale	Pass, Fail
Department	Department of Laboratory Medicine
Decided by	Education committee LABMED
Decision date	2024-03-21
Course syllabus valid from	Autumn 2024

## Specific entry requirements

Biology 2, Physics 1a or Physics 1b1+1b2, Chemistry 2, Mathematics 3b or Mathematics 3c or Mathematics C.

## Objectives

The general aim of the course is for the student to develop a basic knowledge of the normal structure and function of the human body and the interaction of the various organ systems. Advanced knowledge is taught by relating normal function to dysfunction and integrating pathophysiology into the course.

### *Knowledge and understanding*

Upon completion of the course, the student should be able to, at a **basic** level:

- **Explain** the anatomy and physiology of the human body at the cell, tissue, organ, and organ system level. (SOLO 2-3)
- **Explain** how organ systems work together to maintain homeostasis during physical work. (SOLO 4)
- **Explain** dysfunction/disease in various organs in relation to normal function. (SOLO 3-4)
- **Provide** an overview of diagnostic methods used to assess the function of various organ systems. (SOLO 3)
- **Discuss** the concepts of sustainable development and global health from a health perspective and in relation to the profession. (SOLO 4)

*Skills and Abilities*

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

- **Perform** manual pulse and blood pressure measurement according to current guidelines. (Miller 3)
- **Express** themselves verbally and in writing, using the appropriate terms. (Miller 3)
- **Apply** basic statistical procedures based on data from practical exercises. (Miller 2)

*Values and Perspectives*

Upon successful completion of the course, the student should be able to, at a **basic** level:

- **Demonstrate** a critical and scientific approach to literature and other learning sources. (SOLO 4)

## Content

The content is based on diagnostic methods in biomedical laboratory science to emphasise the link to the profession. This allows students to learn about both health and disease in each specific area while maintaining a connection to the profession. Organ systems anatomy, physiology and pathophysiology are integrated in the teaching to emphasise the relationship between structure, function and dysfunction. The global perspective of public health and aspects of sustainable development are considered in the course. The course also includes hands-on performance of pulse and blood pressure measurements.

The course focuses on the areas of basic science skills and biomedical laboratory science, as well as a general level of academic competency.

The course covers the following areas:

- Global health and sustainable development
- Anatomical terminology
- Pathophysiology
- The nervous system including the sensory organs
- Circulation
- Practical exercises such as pulse and blood pressure
- Respiration
- Skin and mucous membranes
- The musculoskeletal system
- Exercise physiology

## Teaching methods

The pedagogy is based on student-centred and student-activated learning, which in this course is based on the concept of the "flipped classroom", where students prepare before each lecture using study guides, reading, quizzes and film clips. Teacher-led learning includes lectures, workshops, and practical and clinical applications.

## Examination

The course is examined with :

- written examination
- oral and written presentation of an in-depth assignment
- formative assessments
- clinical examination of manual blood pressure measurement
- presentation of the statistical processing of the results of the practical exercises

The examiner decides whether and how the absence of compulsory parts can be compensated. Study results can only be reported if the student has attended the compulsory parts of the course or has compensated for the absence in accordance with the examiner's instructions. Absence from a compulsory part of the course may result in the student not being able to take the opportunity until the next time.

Students who fail a regular exam have the right to retake the exam five more times. If the student has failed six exams/tests, no further exam will be given. Each time the student takes the same exam, it will count as one exam. The submission of a blank examination paper is considered an examination. If a student is registered for an examination but does not attend, this is not counted as an examination.

If there are special reasons or adjustments are required for a student with a disability, the examiner may decide to deviate from the provisions of the syllabus regarding the form of examination, the number of examination opportunities, the possibility of supplementing or exempting compulsory educational elements, etc. The content and intended learning outcomes, as well as the level of expected skills, knowledge and abilities, may not be changed, removed or lowered.

## Transitional provisions

For a course that has been discontinued, undergone major changes, or where the reading list has been significantly changed, an additional exam (other than the regular exam) of the previous content or literature should be conducted for a period of one year from the date the change took place.

## Other directives

The course is evaluated in accordance with the guidelines laid down by the Committee for Higher Education.

Part of the course may be taught in English.

## Literature and other teaching aids

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

*Sand, Olav; Sjaastad, Øystein V.; Haug, Egil; Bjålie, Jan G.; Toverud, Kari C.  
Bolinder-Palmér, Inger; Olsson, Kristina*

Tredje upplagan : Stockholm : Liber, [2021] - 668 sidor  
ISBN:9789147142873 LIBRIS-ID:1f7cddfz3598w7k

[Library search](#)

### **Medicinboken : orsak, symtom, diagnostik, behandling**

*Grefberg, Nils*

5., [rev.] uppl. : Stockholm : Liber, 2013 - 704 s.  
ISBN:9789147105816 (inb.) LIBRIS-ID:14678372

[Library search](#)

### **Vårdhandboken**

Inera AB,

URL: [Länk](#)

## In-depth literature

### **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.; Lindskog, Stefan*

**Medicinsk mini-ordbok**

7. uppl. : Stockholm : Norstedt, 2011 - 508 s.

ISBN:978-91-1-302791-3 LIBRIS-ID:12134782

[Library search](#)