

**SYLLABUS**

# **Medical science: Anatomy and physiology in position to occupational therapy 15 credits M0118H**

**Medicinsk vetenskap: Anatomi och fysiologi med inriktning mot arbetsterapi**

**Course syllabus admitted: Autumn 2023 Sp 1 - Present**

**DECISION DATE  
2023-02-14**

# Medical science: Anatomy and physiology in position to occupational therapy 15 credits M0118H

## Medicinsk vetenskap: Anatomi och fysiologi med inriktning mot arbetsterapi

### First cycle, M0118H

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	U G VG	Medicinsk vetenskap	Medicine

## Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and the course requires corresponding prior knowledge:

A0044H Occupational therapy: The profession and the subject, 15 Hp

A0043H Psychology in position to Occupational Therapy, 7,5 Hp

A0045H Occupational therapy: Pedagogy for change processes, 7,5

## Selection

The selection is based on 1-165 credits.

## Course Aim

Upon successful completion of the course, students will have the necessary professional knowledge to be able to:

Outcome 1. Use medical terminology and anatomical concepts.

Outcome 2. Explain the significance of different tissues for the construction and function of the body.

Outcome 3. Describe the musculoskeletal system's anatomy.

Outcome 4. Describe neuroanatomy and neurophysiology.

Outcome 5. Describe the anatomy of the circulatory, respiratory, and abdominal organs.

Outcome 6. Explain basic physiological processes and how different organ systems interact to achieve homeostasis.

Outcome 7. Describe how physiological functions and nutritional needs relate to the different levels of activity.

Outcome 8. Describe physiological differences between women and men, as well as changes throughout life.

Outcome 9. Conduct a basic movement analysis for activities, and explain the significance of motor control and cognitive processes that guides the performance of activities.

Outcome 10. Evaluate personal knowledge and identify personal need for knowledge development.

## Contents

Medical terminology

Cells and tissues

Anatomy and physiology of the musculoskeletal system

Anatomy and physiology of the nervous system

Anatomy and physiology of the sensory nervous system

Pain physiology

Neuropsychology

Anatomy of the circulatory, respiratory, and abdominal organs

Circulatory and respiratory physiology

Work physiology

Gastrointestinal physiology

Renal physiology

Nutritional physiology

Motor control

Movement analysis

## Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

The course is divided into five units.

The first unit Basic anatomy covers the knowledge necessary for outcomes 1 and 2. The second unit The musculoskeletal system covers the knowledge necessary for outcomes 3 and 8. The third unit The nervous system covers the knowledge necessary for outcomes 4 and 8. The fourth unit Physiology covers the knowledge necessary for outcomes 5-8. Finally, the fifth unit Function for activity performance covers the knowledge necessary for outcome 9. Knowledge necessary outcome 10 is covered in all units. Each unit begins with lectures that provide an overview of the unit in relation to the course's intended learning outcomes, as well as assignments and examinations. The content is addressed both individually and in groups, using literature study, lectures, laboratory sessions with case studies, seminars and written and oral presentations. An online course platform and schedule will be available. These will guide the student through the course's teaching forms towards the intended learning outcomes. It also describes the assignments and examinations.

To benefit from the course, students must employ an exploratory and critical approach to actively seek knowledge and solve problems. This means that students must take responsibility in order to meet the intended learning outcomes, by planning their learning and cooperation with other course participants. Students will also need to acquire an understanding of the course content's significance for the competence of the occupational therapist. In addition, students must understand the course's progression in relation to other courses within the program. The assignments are compulsory and are included in the course modules. The assignments are a way for students to develop their knowledge, skills, and judgement approach in relation to the course's outcomes. By interacting and exchanging experiences with others, students will be able to assess their own competence relevant to the occupational therapist profession.

The course is conducted using a distance learning methodology and is mainly web-based, which requires digital literacy and access to a working internet connection, headset and webcam. Part of the course is located on campus for the completion of study assignments and examinations. Campus weeks are compulsory. Absence from compulsory coursework may mean that the student is unable to make up opportunities until the next time the course is delivered.

## Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. The course uses the following grades: Pass with credit (VG), Pass (G), and Fail (U).

Outcomes 1 and 2 are assessed through assignments and an individual written assignment,  
Outcomes 3 and 8 are assessed through assignments and an individual written examination,  
Outcomes 4 and 8 are assessed through assignments and an individual written examination,  
Outcomes 5, 6, 7 and 8 are assessed through assignments, seminars and an individual written examination,  
Outcome 9 is assessed through assignments, laboratory work and seminars,  
Outcome 10 is continually assessed as part of the student's learning reflections during the course.

Students must pass their assignments to receive a grade for the course. The outcomes are assessed throughout the course and examination period, as well as during the LTU resit period. Grading criteria for each examination are available from the online course platform.

## Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term "unauthorized aids" refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

## Remarks

This is a first-level course. Successful completion of the course will provide the special entry requirements for the programme's clinical placements and the degree project course. The course is compulsory for students on the Occupational Therapy programme.

## Overlap

The course M0118H is equal to M0104H

The program syllabus in which this course is included applies from the autumn semester year 2022. For students who have been admitted to the previous program syllabus, and who resume their studies under the current program syllabus after a break in their studies, the head of education and subject coordinators will decide on individual study plans and credit transfers.

If the course is discontinued or has undergone a major change, students will be offered two opportunities for examination in the first year after the change and then once more per year for the following two years.

## Course offered by

Department of Health, Education and Technology

## Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0001	Basic anatomy	U G#	3	Mandatory	S23	
0002	The musculoskeletal system	U G VG	3	Mandatory	S23	
0003	The nervous system	U G VG	2	Mandatory	S23	
0004	Physiology	U G VG	4	Mandatory	S23	
0005	Functional capacities supporting activity performance	U G#	3	Mandatory	S23	

## Last revised

by Anna Öqvist, Director of Undergraduate Studies at the Department of Health, Education and Technology 2023-02-14

## Syllabus established

by Anna Öqvist, Director of Undergraduate Studies at the Department of Health, Education and Technology 2022-

02-15