

## Exercise as Medicine 7.5 credits

Träning som medicin 7.5 hp

Second cycle

Main field: Exercise Biomedicine, Second cycle, has only first-cycle course/s as entry requirements (AIN)

Syllabus is adopted by the Research and Education Board (2024-03-08) and is valid for students admitted for the autumn semester 2024.

### Placement in the Academic System

The course is included in the Master of Science (60 credits) programme in Exercise Biomedicine – Health and performance and is given as a single subject courser.

### Prerequisites and Conditions of Admission

Bachelor of Science with a major in Exercise Biomedicine, Biomedicine, Physiotherapy, or Sport Science, including 15 credits independent project. The degree must be equivalent to a Swedish kandidatexamen and must have been awarded from an internationally recognised university. The courses Anatomy and physiology 15 credits, Exercise Training 7,5 credits. English 6. Exemption of the requirement in Swedish is granted.

### Course Objectives

The course aims to develop the student's knowledge concerning the link between physical activity/exercise and health. The effects of physical activity/exercise as health promotion and disease prevention with a focus on musculoskeletal diseases. Metabolic, cardiovascular, immunological, and neuromuscular consequences of physical activity/exercise are addressed from micro-and macro perspectives. The course aim to enable students to develop ability to independently evaluate and judge scientific research results obtained in the discipline also regarding aspects of societal, ethical, and gender equality.

Following successful completion of the course, the student should be able to:

#### *Knowledge and understanding*

- summarize how physical activity and exercise can be related to health and well-being in people with musculoskeletal diseases
- explain relevant evaluation methods of physical activity and exercise aimed to affect health at both individual- and group level

#### *Skills and ability*

- use literature databases to seek and, following critical review, select relevant research results within the subject exercise as medicine
- discuss and provide arguments based on different perspectives on research and evidence within the subject exercise as medicine

#### *Judgement and approach*

- discuss, evaluate and respectfully pursue a scientific oral and written discussion at seminars and examinations within the subject of exercise as medicine also about societal aspects
- reflect on the link between physical activity/exercise, health, and disease in relation to gender equality and the equal value of all humans

### Primary Contents

The main content of the course is to theoretically deepen the knowledge of how physical activity and exercise in musculoskeletal diseases can affect health and well-being and can serve as health promotion and disease prevention. Furthermore, the course deals with relevant methods of evaluating physical activity/exercise in musculoskeletal diseases. The course is based on studies and discussions of the most recent research on the relevant subject: physical activity and exercise as medicine.

### Teaching Formats

The teaching primarily consists of seminars, lectures, and projects. The students are mainly expected to independently assimilate the required reading including research studies in the subject. Some of the teaching may take place via information- and communication technology. The language of instruction is in English.

### Examination

The overall grades of Fail, Pass or Pass with distinction will be awarded for the course.

The examination consists of written examination and oral and written presentation of project works.

All examinations are assessed individually.

Name of the test		Grading
Written Examination	4 credits	U/G/VG
Written and Oral Presentation of Project Work	3,5 credits	U/G

If there are special reasons, the examiner may make exceptions from the specified examination format and allow a student to be examined in another way. Special reasons can e.g. be a decision on learning support.

For elite sports students according to Riktlinjer för kom-

binationen studier och elitidrott vid Högskolan i Halmstad, DNR: L 2018/177, the examiner has the right to decide on an adapted examination component or let the student complete the examination in an alternative way.

### Course Evaluation

Course evaluation is part of the course. This evaluation should offer guidance in the future development and planning of the course. Course evaluations should be documented and made available to the students.

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## Course Literature and Other Study Resources

Bouchard, Claude., Blair, Steven N., & Haskell, William L. *Physical activity and health*. Human Kinetics, 2012 (latest edition)

Swain, David P., Brawner, Clinton A., & American College of Sports Medicine. *ACSM's resource manual for guidelines for exercise testing and prescription*. Wolters Kluwer HealthLippincott Williams & Wilkins, 2014 (latest edition)

WHO. *WHO guidelines on physical activity and sedentary behaviour*. Geneva: World Health Organization (WHO). Electronic resource. Downloaded from

Hämtad från <https://www.who.int/publications/i/item/9789240014886>

### Reference literature

Moore, Geoffrey., Durstine, J. Larry., Painter, Patricia., & American College of Sports Medicine. *ACSM's Exercise Management for Persons With Chronic Diseases and Disabilities, 4E*. Human Kinetics, 2016

Yrkesföreningen för fysisk aktivitet. *Fysisk aktivitet i sjukdomsprevention och sjukdomsbehandling*. 2017  
Electronic resource. [www.fyss.se](http://www.fyss.se)

WHO. (2018). *Global action plan on physical activity 2018-2030: more active people for a healthier world*. [Elektronisk resurs]. Geneva: World Health Organization (WHO). Electronic resource. Downloaded from

<https://apps.who.int/iris/bitstream/handle/10665/272722/9789241514187-eng.pdf>.

Research articles related to the subject.