



**Karolinska
Institutet**

Course syllabus for

Body composition from a clinical perspective, 7.5 credits

Kroppssammansättning och sjukdomstillstånd, 7.5 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

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

Autumn2015 , Autumn2021 , Spring2023

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| Course code | 2QA243 |
| Course name | Body composition from a clinical perspective |
| Credits | 7.5 credits |
| Form of Education | Higher Education, study regulation 2007 |
| Main field of study | Clinical Medical Science |
| Level | Second cycle, has only first-cycle course/s as entry requirements |
| Grading scale | Pass, Fail |
| Department | Department of Biosciences and Nutrition |
| Decided by | Styrelsen för utbildning |
| Decision date | 2014-10-23 |
| Revised by | Education committee BioNut |
| Last revision | 2024-02-28 |
| Course syllabus valid from | Spring 2023 |

Specific entry requirements

A Bachelor's degree or a professional degree of at least 120 credits in healthcare or medicine, or nutrition is required. And proficiency in Swedish and English equivalent to Swedish B/Swedish 3 and English A/English 6.

Objectives

The course aims to provide theoretical knowledge in body composition methodology and its practical application in adults and in elderly and in various clinical conditions.

After completing the course, students should be able to:

- 1) account for the physiological meaning of sarcopenia and its functional implications and describe what characterizes primary and secondary sarcopenia.
- 2) account for body composition in the healthy individual throughout the life course and in different clinical conditions.

- 3) apply common methods to assess body composition and be able assess the reliability, validity and suitability of these methods in different clinical conditions
- 4) explain the association between energy metabolism (diet, physical activity) and body composition.
- 5) account for how different types of interventions (diet, physical activity) affect body composition in aging and in different clinical conditions.

Content

The course includes: a) an in-depth study of the condition sarcopenia, b) how the body is affected by diet, physical activity, aging and different clinical conditions, c) methods to assess body composition such as skin fold thickness, bioimpedance, BodPod and DEXA. The methodology is applied in adults, elderly and various clinical conditions.

Teaching methods

The course comprises compulsory teaching and examination occasions. The teaching forms consist of lectures, laboratory work, individual work, group work, group discussions and literature studies.

Examination

The learning objectives are examined through an individual assignment consisting of a case where the student provides a theoretical and clinical discussion about methods for measuring body composition and sarcopenia, and interprets the results and gives suggestions for intervention in relation to diagnosis. The assignment is presented and discussed at a seminar where the students are each other's opponents.

In the case a student fail the individual assignment, it can be resubmitted a maximum of five more times. After six failed assignments, no further examination opportunities will be given for that assignment. If the student has not submitted complementation at given deadline, grade fail is given. A student who has failed two examinations for a course or part of a course, is entitled to have another examiner appointed unless special reasons speak against it.

Compulsory participation:

Participation in teaching and examination occasions is compulsory. The examiner assesses if and, in that case, how absence from compulsory parts can be compensated. Before the student has participated in all compulsory parts or compensated absence according with the examiner's instructions, the student's study results cannot be finalized. Absence from a compulsory activity may result in that the student cannot compensate absence until the next time the course is given.

If there are special reasons, or need for adaptations for a student with a disability, the examiner may decide to depart from the syllabus's regulations on examination form, number of examination opportunities, possibility of complementation of or exemption from compulsory activities, etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities must not be altered, removed or lowered.

Transitional provisions

The course has been cancelled and was offered for the last time in the autumn semester of 2021. Examination according to this syllabus will be provided until the autumn semester of 2024, for students who have not completed the course with passing grade.

Other directives

Language of instruction: Swedish. Some lectures may be given in English.

The course may not be included in a degree together with the following courses: 2QA185, Body

composition and disease state, 7.5 credits and 4KL030, Body composition and disease state, 7.5 credits.

Literature and other teaching aids

Näringslära för högskolan

Berg, Christina; Ellegård, Lars; Larsson, Christel

Sjunde upplagan : Stockholm : Liber, [2021] - 494 sidor

ISBN:9789147131075 LIBRIS-ID:kzpg8wbhhtkzbrvs

[Library search](#)

Sobotka, Lubo

Basics in clinical nutrition

4th ed. : Prague, Czech Republic : Galén, 2011 - xxxii, 723 p.

ISBN:978-80-7262-821-6 LIBRIS-ID:12335746

A new edition (2019) can be ordered from: http://www.galenbooks.com/espen_blue_book.php

[Library search](#)