



**Karolinska
Institutet**

Course syllabus for

Nutrition, the nutrients and metabolism, 7.5 credits

Grundläggande näringsfysiologi, 7.5 hp

This course syllabus is valid from spring 2022.

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

Autumn2011 , Spring2012 , Autumn2015 , Autumn2019 , Spring2022

Course code	1QA096
Course name	Nutrition, the nutrients and metabolism
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	First cycle, in-depth level of the course cannot be classified
Grading scale	Fail (U), pass (G) or pass with distinction (VG)
Department	Department of Biosciences and Nutrition
Decided by	Styrelsen för utbildning
Decision date	2011-02-10
Revised by	Education committee BioNut
Last revision	2021-10-28
Course syllabus valid from	Spring 2022

Objectives

After completing the course the students should be able to:

- o Describe the physiological function and metabolism of the macronutrients.
- o Explain the energy metabolism and evaluate variations in energy demands due to physical activity level, age and gender as well as physiological and health status.
- o Describe the essential micronutrients; their physiological functions, bioavailability, mechanisms of absorption, metabolism, excretion and storage, food sources and relationship to the maintenance of health.
- o Describe causes and symptoms of malnutrition and define possible causes.
- o Describe the nutrient recommendations, the rationale for them and their application areas.

Content

The key topics are taught in the form of prerecorded lectures followed by study assignments and mandatory discussion assignments and is examined by a written exam. The topics include introduction to

the digestive system, the macro nutrients and the micro nutrients and their metabolism, energy metabolism and nutrient recommendations. This is integrated with discussions about risk groups, symptoms of deficiencies, food sources and supplements.

Teaching methods

The course includes prerecorded lectures, discussions, study assignments and discussion assignments.

Examination

The course is examined by a written examination at the end of the course.

Compulsory participation:

Discussion assignments are compulsory. The course director assesses if and, in that case, how absence can be compensated.

Limited number of examinations or practical training sessions:

The student has the right to write the exam six times. The number of times that the student has participated in one and the same examination is regarded as an examination session. Submission of a blank examination is regarded as an examination. An examination for which the student registered but not participated in, will not be counted as an examination.

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

In cases where the course ceases or undergoes extensive changes, the student has the right to be examined in accordance with this course syllabus within two years.

Other directives

Language of instruction: swedish.

Literature and other teaching aids

Whitney, Eleanor Noss; Rolfes, Sharon Rady

Understanding nutrition

14. ed. : Stamford, Conn. : Cengage Learning, cop. 2016 - xxii, 687, [254] s.

ISBN:9781285874340 LIBRIS-ID:17505590

[Library search](#)

Nordic Nutrition Recommendations 2012 : Integrating nutrition and physical activity

Nordic Council of Ministers, 2014

LIBRIS-ID:16556096

Näringslära för högskolan

Berg, Christina; Ellegård, Lars; Larsson, Christel

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

ISBN:9789147131075 LIBRIS-ID:kzpg8wbhhtkzbrvs

[Library search](#)