



**Karolinska
Institutet**

Course syllabus for

Nutrition 1, the nutrients and energy metabolism, 7.5 credits

Nutrition 1, näringsfysiologi, 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:

Spring2008 , Autumn2009 , Spring2010 , Spring2011

Course code	4FH016
Course name	Nutrition 1, the nutrients and energy metabolism
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Public Health Sciences
Level	AV - Second cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Biosciences and Nutrition
Participating institutions	<ul style="list-style-type: none">• Department of Global Public Health
Decided by	Arbetsgruppen för masterprogrammet i folkhälsovetenskap
Decision date	2007-10-04
Revised by	Education Committee GPH
Last revision	2023-11-09
Course syllabus valid from	Spring 2011

Specific entry requirements

Bachelor's degree or vocational degree worth at least 180 credits in public health science, healthcare or other relevant social sciences. Proficiency in the English language documented by an internationally recognized test such as TOEFL with a total score of at least 79 (internet based), 550 (paper based), 213 (computer based), IELTS with a total score of at least 6,0 (no band less than 5,0), or other documentation that certifies English language skills equivalent to English B at Swedish upper secondary school.

Objectives

After completing the course the students should be able to:

- o Describe the physiological function, bioavailability and metabolism of the macronutrients and their relationship to the maintenance of health.
- o Explain the energy metabolism and body composition, and critically 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, define cases and suggest suitable prevention strategies.
- o Describe the nutrient recommendations, the rationale for them and their application areas.

Content

The key topics are taught in lectures followed by seminars and examined by a written exam. The topics include; introduction to the digestive system, the macro nutrients and the micro nutrients and their metabolism, body composition, energy metabolism and assessment methods for assessing diet and body composition. This is integrated with discussions about risk groups, symptoms of deficiencies, food sources and supplements. The assessment methods are also applied in practical sessions.

Teaching methods

The course includes lectures, group work and discussions, individual assignments, student presentations and practical sessions.

Examination

The course is examined by a written examination at the end of the course. Grades are given according to the 3-graded scale; fail/pass/pass with distinction. Criteria for grades are handed out upon course start.

Compulsory participation

Seminars, presentations and practical sessions are compulsory. The course director assesses if and, in that case, how absence can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the course director's instructions, the student's results for the course/respective part will not be registered in LADOK.

Limited number of examinations or practical training sessions

The student has the right to write the exam six times. If the student has not passed the exam after four participations he/she is encouraged to visit the study counselor.

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.

Transitional provisions

The course has been cancelled and was offered for the last time spring semester of 2011. Examination according to this syllabus will be provided until the autumn semester of 2024, for students who have not completed the course with a passing grade.

Other directives

The course will be evaluated in accordance with the guidelines established by the board of Education

The course language is English.

Literature and other teaching aids

Whitney, Eleanor Noss; Rolfes, Sharon Rady

Understanding Nutrition

11. ed. : Belmont, CA : Thomson/Wadsworth, 2008 - Engelska 720 s. (+various pagings)

ISBN:978-0-495-11686-8

[Library search](#)

Gibney, Michael J

Public health nutrition

4 edt : Oxford, UK : Blackwell Science, 2004 - xiv, 378 s.b ill.

ISBN:0-632-05627-4 LIBRIS-ID:9721861

[Library search](#)