



**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"><li>• Department of Global Public Health</li></ul>
Decided by	Arbetsgruppen för masterprogrammet i folkhälsovetenskap
Decision date	2007-10-04
Course syllabus valid from	Spring 2008

## **Specific entry requirements**

Bachelor's degree or vocational training corresponding to 180 ECTS credits (120 credits in previous Swedish system) in public health sciences, health care, or another relevant medical or social science subject area

## **Objectives**

After completing the course the students should be able to:

- o Recognise the macronutrients, describe their physiological function, metabolism and relationship to the maintenance of health
- o Explain the energy metabolism, how it varies between individuals and different circumstances and critically evaluate variations in nutritional demand due to physical activity level, age and gender, physiological and health status
- o Recognise the essential micronutrients, describe their physiological functions, bioavailability, mechanisms of absorption, excretion and storage, food sources and relationship to the maintenance of health
- o Describe symptoms of malnutrition and define cases
- o Search for and summarize relevant scientific material within the area of nutritional science

## Content

The course constitutes of some key lectures and to a large extent of distance individual work and student presentation in seminars. The IT-tool Pingpong serves as a plat-form and constitutes the main contact between students and teachers. The course includes o Introduction to the digestive system o The macro-nutrient and their metabolism o Energy metabolism and body composition and how they are affected by physical activity and growth o The micro-nutrients; their bioavailability, balance, metabolism, essentiality and interrelationships. This is integrated with discussions about risk groups, nutrition through the life cycle, food sources and supplements.

## Teaching methods

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

## Examination

a. The course is examined by a written examination at the end of the course, a written assignment where students apply nutritional knowledge to a certain risk group or health situation, and written and/or oral presentations on a chosen nutrient. After each lecture the students are expected to hand in answers to study questions related to the lecture. All study questions need to be handed in order for the student to pass the course. b. Grades are given according to the 3-graded scale; failed/passed/passed with distinction c. Criteria for grades are handed out upon course start. Students who fail in regular examination have the right to be examined five more times. This applies to examination of all compulsory modules. Students who have passed an examination have no right to be reexamined for a higher grade. Students who have failed two times have the right to be examined by another teacher.

## Transitional provisions

A student can claim to be examined according to this course syllabus also after it has been closed, maximum three times within two years after the closing.

## Other directives

The course will be evaluated in accordance with the guidelines established by the board of Education Upon course closures, the course is evaluated using Websurvey.

## Literature and other teaching aids

*Whitney, Eleanor Noss; Rolfes, Sharon Rady.*

### Understanding nutrition

11. ed. : Belmont, CA : Thomson/Wadsworth, cop. 2008 - 1 v. (various pagings)

ISBN:9780495116868 LIBRIS-ID:10563561

[Library search](#)

### Nordic Nutrition Recommendations 2004 : integrating nutrition and physical activity

4th edition : Copenhagen : Nordic Council of Ministers, Council of Ministers,c 2004 - 435, [1] s.

ISBN:92-893-1062-6 LIBRIS-ID:9851293

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