



**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	Programnämnden för folkhälsovetenskap
Last revision	2009-05-11
Course syllabus valid from	Autumn 2009

Specific entry requirements

Bachelor's degree or vocational degree worth at least 180 higher education 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 Explain and describe different methods for assessing diet and body composition and describe their sources of error.

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

a. The course is examined by a written examination at the end of the course. b. Seminars, presentations and practical sessions are compulsory, absence must be compensated for by a written assignment or by taking part next time the session is given. c. Grades are given according to the 3-graded scale; fail/pass/pass with distinction d. 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, within two years after the closing.

Other directives

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

Literature and other teaching aids

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

[Library search](#)

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](#)

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

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