

BIOR50, Biology: Nutrition Physiology, 15 credits

Biologi: Näringsfysiologi, 15 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2007-05-10 to be valid from 2007-07-01, autumn semester 2007.

General Information

The course is an optional second-cycle course for a degree of Bachelor or Master of Science in Biology and Molecular Biology. The course is also offered as a single subject course.

Language of instruction: English and Swedish

If needed, the course is taught in English.

Main field of studies

Molecular Biology

Biology

Depth of study relative to the degree requirements

A1N, Second cycle, has only first-cycle course/s as entry requirements

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Learning outcomes

On completion of the course the student shall be able to:

- understand nutrition physiology in accordance with the course content
- understand and get experience in working methodologies used in nutrition physiology
- get experience in problem-solving evaluate results and report these orally and in writing
- demonstrate a knowledge base for PhD studies and work related to nutrition physiology

Course content

The course includes:

- The structure of the gastrointestinal tract; its function and neuroendocrinal regulation.
- Digestion, absorption and metabolism of nutrients (carbohydrates, proteins, fat etc).
- Accessory glands' (salivary glands; pancreas; liver) physiology.
- The immune system and bacterial ecosystems of the gastrointestinal tract.
- Appetite regulation.
- Diet and nutrition.
- The ontogeny and phylogeny of the gastrointestinal tract.
- Overview of diseases in the gastrointestinal tract and in the nutrition metabolism.
- Methods and animal models in nutrition physiology.

Course design

The teaching consists of lectures, laboratory sessions and seminars as well as a group project work. The lectures are often given by invited researchers in the different fields of nutrition physiology. The seminars include student presentations of projects and group discussions of scientific articles and laboratory results. Participation in the laboratory parts and thereby all integrated teaching is compulsory.

Assessment

The assessment is based on a written examination at the end of the course. For students who have not passed the regular examination, an additional examination in close connection to this is offered.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass, Pass with distinction.

To pass the entire course, approved examination, approved laboratory reports, approved written assignments, approved project report, and participation in all compulsory parts, are required.

The final grade is based on the result of the written examination.

Entry requirements

For admission to the course, English 6/English B as well as 90 credits of scientific studies including knowledge corresponding to MOB101 Cell Biology 15 credits, BIO006 Genetics and Microbiology 15 credits, Chemistry 15 credits, as well as BIO577 Human Physiology 15 credits or BIO504 Zoology 12 credits, are required.

Further information

The course may not be included in a degree together with BIO651 Nutrition Physiology 15 credits.

Subcourses in BIOR50, Biology: Nutrition Physiology

Applies from H13

- 1311 Theory, 9,0 hp
Grading scale: Fail, Pass, Pass with distinction
- 1312 Seminars, 3,0 hp
Grading scale: Fail, Pass
- 1313 Laboratory Work, 3,0 hp
Grading scale: Fail, Pass

Applies from V08

- 0701 Nutrition Physiology, 15,0 hp
Grading scale: Fail, Pass, Pass with distinction