

KLADDE

## **AFLYST 6/9 Nutrition Biology (Seminar Course in MHS / Videregående Medicinalbiologi)**

Title	AFLYST 6/9 Nutrition Biology (Seminar Course in MHS / Videregående Medicinalbiologi)
Semester	E2023
Master programme in Molecular Health Science	Medicinal biologi / Chemical Biology / Mathematical Bioscience /
Type of activity	Course
Teaching language	English
Study regulation	Read about the Master Programme and find the Study Regulations at <a href="http://ruc.dk">ruc.dk</a> Læs mere om uddannelsen og find din studieordning på <a href="http://ruc.dk">ruc.dk</a>

### **REGISTRATION AND STUDY ADMINISTRATIVE**

Sign up for study activities at [stads selvbetjening](#) within the announced registration period, as you can see on the [Studyadministration homepage](#).

When signing up for study activities, please be aware of potential conflicts between study activities or exam dates.

#### Registration

The planning of activities at Roskilde University is based on the recommended study programs which do not overlap. However, if you choose optional courses and/or study plans that goes beyond the recommended study programs, an overlap of lectures or exam dates may occur depending on which courses you choose.

Number of participants	The Master Programme/Institute reserves the right to cancel the course if fewer than 15 studentes are registered for the course.
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ECTS	5
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Responsible for the activity	Ole Vang ( <a href="mailto:ov@ruc.dk">ov@ruc.dk</a> )
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Head of study	Lotte Jelsbak ( <a href="mailto:ljelsbak@ruc.dk">ljelsbak@ruc.dk</a> )
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Teachers

Study administration INM Registration & Exams ([inm-exams@ruc.dk](mailto:inm-exams@ruc.dk))

Exam code(s) U60206

## ACADEMIC CONTENT

Overall objective	<p>The course covers molecular, biochemical, medical, physiological and cellular biological responses, mechanisms and adaptations.</p> <p>The main emphasis is on knowledge and understanding, theory and scientific methods and oral presentation. The content of the individual courses appears in the course description on <a href="http://study.ruc.dk">study.ruc.dk</a>.</p> <p>The course will introduce to nutrition and nutritional components and their relevance to human health and diseases.</p> <p>The knowledge will be given by introductory lectures, student presentations, and discussions in the selected themes.</p> <p>As part of the course each student have to make a meta-analysis in the nutritional biology area. Experience in preparing meta-analysis is a relevant competence in a coming job search.</p>
Detailed description of content	<p>The themes covered by Nutritional Biology are</p> <ul style="list-style-type: none"><li>• The content and function of macromolecules in human diet, effect of bioactive compounds and their interactions, including vitamins and minerals</li><li>• Dietary effects on life-style diseases (cancer, diabetes, coronary-hearth disase)</li><li>• Epidemiological studies and metaanalysis</li></ul>
Course material and Reading list	<p>Primary litterature are reviews and original articles posted at <a href="http://moodle.ruc.dk">moodle.ruc.dk</a>.</p> <p>Background litterature:</p> <ul style="list-style-type: none"><li>• "Essentials of Human Nutrition" Jim Mann and Stewart Truswell (Ed) 5ed, Oxford University Press 2017.</li></ul>

- "Modern nutrition in health and disease" shills, shike, ross, caballero and cousins 11ed, lippincott williams & wilkins 2014.

The course contain

- Lectures: 16 hours
- Student presentations: 8 hours
- Meta analysis: 40 hours
- Preparation: 71 hours

Overall plan  
and expected  
work effort

**- In total 135 hours**

The lectures are given by internal and external lectures. The student presentations are based on the problem that are formulated by the student as part of their meta-analysis.

Format

The course includes formative evaluation based on dialogue between the students and the teacher(s).

Evaluation  
and feedback

Students are expected to provide constructive critique, feedback and viewpoints during the course if it is needed for the course to have better quality. Every other year at the end of the course, there will also be an evaluation through a questionnaire in SurveyXact. The Study Board will handle all evaluations along with any comments from the course responsible teacher.

Furthermore, students can, in accordance with RUCs 'feel free to state your views' strategy through their representatives at the study board, send evaluations, comments or insights from the course to the study board during or after the course.

Programme The sepcific course schedule will be posted at moodle.ruc.dk.

## ASSESSMENT

Overall  
learning  
outcomes

After completing the course, the students will be able to:

- describe core biochemical, cellular biological or physiological processes in humans
- discuss the different physiological and regulatory responses in humans to changes in the internal or external environment
- gather relevant knowledge and understanding from scientific review articles, and critically analyse new and original scientific literature, interpret and evaluate experimental data and hypotheses in molecular biology, health science, physiology or cellular biology
- make oral presentations of scientific hypotheses, results and interpretations to fellow students
- reflect upon the latest scientific hypotheses and experiments in the course's subject area
- formulate a relevant research question and a testable hypothesis as a basis for an experimental thesis project related to health science, biochemistry, physiology or cellular biology.

The course is passed through active, regular attendance and satisfactory participation.

Active participation is defined as:

The student must participate in course related activities (e.g. workshops, seminars, field excursions, process study groups, working conferences, supervision groups, feedback sessions).

Form of examination

Regular attendance is defined as:

- The student must be present for minimum 80 percent of the lessons.

Satisfactory participation is defined as:

- e.g. oral presentations (individually or in a group), peer reviews, mini projects, test, planning of a course session .

Assessment: Pass/Fail.

Individual written take-home assignment

Form of Re-examination

The character limit of the assignment is: 24,000-48,000 characters, including spaces.

The character limit includes the cover, table of contents, bibliography, figures and other illustrations, but exclude any appendices.

The duration of the take-home assignment is 7 days and may include weekends and public holidays.

Assessment: Pass/Fail.

Type of  
examination  
in special  
cases

The course is passed through active, regular attendance and satisfactory participation.

Active and satisfactory participation is defined as participation in the lectures and the student presentations and discussion of the theme described in these sessions.

Regular attendance is defined as 80 percent of the lectures and student presentations.

Students will also be assessed by their ability to:

Examination  
and  
assessment  
criteria

- to make 1-2 oral presentations containing scientific hypotheses, results and interpretations the area of nutritional biology to fellow students
- presentations have to discuss the different physiological and regulatory responses in humans in relation to changes in the dietary intake
- identify primary articles concerning a given problem and gather data from these articles, and critically evaluate and compile a meta-analysis. The meta-analysis will show a possible physiological effect of an intervention in relation to diet and/or lifestyle.

**Regarding the reexam:** During the 7 days exam period other study activities from projects or courses can appear

Exam code(s) Exam code(s) : U60206