



**LUND**  
UNIVERSITY

Faculty of Science

## **KEMA01, Chemistry: Organic Chemistry - Basic Course, 7.5 credits**

*Kemi: Organisk kemi - grundkurs, 7,5 högskolepoäng*  
**First Cycle / Grundnivå**

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### **Details of approval**

The syllabus was approved by Study programmes board, Faculty of Science on 2009-11-26 and was last revised on 2009-11-26. The revised syllabus applies from 2010-07-01, autumn semester 2010.

### **General Information**

The course is a compulsory first-cycle course for a degree of Bachelor of Science, main field of study Chemistry.

*Language of instruction:* Swedish

*Main field of studies*

Chemistry

*Depth of study relative to the degree requirements*

G1N, First cycle, has only upper-secondary level entry requirements

### **Learning outcomes**

The aim of the course is to provide students with an introduction to organic chemistry. The objective is that the students, on completion of the course, shall have acquired the following knowledge and skills.

#### **Knowledge and understanding**

On completion of the course, the students shall be able to

- demonstrate knowledge of the most common organic classes and their
- describe the hybridisation of the carbon atom and understand its relevance to the structure and reactivity of organic functional groups
- master the basics of stereochemistry and its applications in organic chemistry
- demonstrate awareness of some basic organic reactions and their
- reaction mechanisms

- account for the basic factors affecting the stability and reactivity of organic substances

### **Competence and skills**

On completion of the course, the students shall be able to

- demonstrate familiarity with the most common laboratory techniques in organic chemistry
- perform a risk assessment in chemical laboratory work

### **Course content**

*Lectures and exercises:*

- naming of simple organic molecules including the most common trivial names
- the structure of simple organic molecules
- stability and reactivity
- acid-base properties of organic compounds
- description of organic reactions including reaction formulas and reaction mechanisms
- risk assessment of chemical laboratory work

*Laboratory exercises* that illustrate the theoretical aspects of the course, which are chosen in order to provide training in standard laboratory techniques and laboratory safety.

### **Course design**

The teaching consists of lectures, group work and laboratory exercises. Participation in laboratory work and associated teaching is compulsory.

### **Assessment**

The assessment is based on a written exam at the end of the course. A re-sit examination is offered soon after the examination to students who do not pass.

*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.

For a grade of Pass on the whole course, the student must have passed the exam and laboratory exercises, and have participated in all compulsory components.

The grades awarded for the exam are Fail, Pass, and Pass with Distinction.

The grades awarded for the laboratory exercises and other compulsory components are Fail and Pass.

The final grade is determined by the grade of the exam.

## **Entry requirements**

General and courses corresponding to the following Swedish Upper Secondary School Programs: Chemistry 2, Mathematics 4, Physics 1a/1b1+1b2.

## **Further information**

The course may not be included in a degree together with KEM101 General Chemistry 1, 15 credits, or KEM111 Chemistry for Environmental and Biological Sciences, 15 credits.

## Subcourses in KEMA01, Chemistry: Organic Chemistry - Basic Course

Applies from H13

- 0711 Organic Chemistry - Basic Course, 5,5 hp  
Grading scale: Fail, Pass, Pass with distinction
- 0712 Organic Chemistry, Laboratory Work, 2,0 hp  
Grading scale: Fail, Pass

Applies from H07

- 0701 Organic Chemistry - Basic Course, 7,5 hp  
Grading scale: Fail, Pass, Pass with distinction
- 0702 Organic Chemistry - Basic Course, Laboratory Work, 0,0 hp  
Grading scale: Fail, Pass