

## Syllabus

### **KE0023.1 Analytical and Natural Products Chemistry, 15.0 credits**

#### **Analytisk naturproduktkemi och kvalitetssäkring**

The course is given as course independent of study programme

Syllabus discontinued 14 March 2022

Version 1 in Slukurs. Corresponds to version 1 in Ladok

#### **Syllabus approved**

28 April 1998

The version applies to students admitted from spring 1999

The version is not a module version

#### **Subjects**

Chemistry/Biology

#### **Education cycle**

First cycle

#### **Modules**

| Title         | Code | Credits |
|---------------|------|---------|
| Single module | 0101 | 15.0    |

#### **Advanced study in the main field**

#### **Grading scale**

Pass / Failed

The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

**Language**

Swedish

**Prior knowledge**

The equivalent of: 10 Swedish University Credits (SUC) in General and Organic Chemistry; and 20 SUC in Biology including 10 SUC in Biochemistry.

**Objectives**

Having completed the course the students will have knowledge of and experience with:

- the most important groups of natural products, their occurrence, properties, biosynthesis and chemistry
- chemical and spectroscopic methods for structural studies of natural products
- chromatographic techniques for isolation and analysis of natural products
- different separation methods and immunological techniques
- different systems for quality assurance, estimations of analytical errors and method specifications.

**Content**

The following groups of natural products are covered:

Carbohydrates, lipids, nucleic acids, amino acids, peptides, phenols, terpenes, alkaloids. Also covered are the following analytical techniques and principles: Spectroscopy (NMR, MS, UV, IR), chromatography (GC, HPLC, LC, TLC), immunology (ELISA, RIA), separation (precipitation, extraction, distillation), sample taking, sample treatment, and quality assessment.

**Implementation**

Lectures and group seminars ca 100 h

Laboratory exercises ca 120 h (compulsory)

**Examination****Requirements for examination**

Written examination and written and oral presentation of compulsory exercises.

Passed written examination and completed compulsory exercises.

- If the student fails a test, the examiner may give the student a supplementary assignment, provided this is possible and there is reason to do so.
- If the student has been granted special educational support because of a disability, the examiner has the right to offer the student an adapted test, or provide an alternative assessment.
- If changes are made to this course syllabus, or if the course is closed, SLU shall decide on transitional rules for examination of students admitted under this syllabus but who have not yet passed the course.
- For the examination of a degree project (independent project), the examiner may also allow the student to add supplemental information after the deadline. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

### **Transitional regulations**

- Exams: At least three retake sessions (renewed exams) must be offered within two years of the decision to cancel the course.
- Compulsory elements: At least one opportunity for a retake session must be offered within two years of the decision to cancel the course.

### **Additional information**

- The right to take part in teaching and/or supervision only applies to the course date to which the student has been admitted and registered on.
- If there are special reasons, the student may take part in course components that require compulsory attendance at a later date. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

### **Responsible department**

Department of Molecular Sciences

### **Supplementary Information**

*Finalized by:* Programnämnden för JLT-fakultetens utbildning, Ultuna  
*Biology Area:* Other Biology Courses