



LTH

FACULTY OF
ENGINEERING

Course syllabus

Tekniskt basår: Tillämpad kemi Pre-University Course in Technical Sciences: Applied Chemistry

TBAA36, 3 credits, G1 (First Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED TB

Date of Decision: 2023-04-19

General Information

Depth of study relative to the degree requirements: First cycle, has only upper-secondary level entry requirements.

Compulsory for: TNB1-TEBA

Language of instruction: The course will be given in Swedish

Aim

The purpose of the course is to give the student fundamental knowledge of Chemistry for further studies on university.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

Does not exist in this form.

Competences and skills

For a passing grade the student must

Does not exist in this form.

Judgement and approach

For a passing grade the student must

Does not exist in this form.

Contents

Reactions and changes

- Reversible reactions

Environmental Chemistry

- Sustainable development with discussion of the biogeochemical cycles
- Greenhouse effect, its causes and effects
- Acidification, its causes and effects
- Eutrophication, its causes and effects
- Environmental toxins such as DDT, PCBs and flame retardants
- Green Chemistry

Materials

- Polymers chemical structure, properties and uses
- Ceramics chemical structure, properties and uses
- Alloys chemical structure, properties and uses

Food Chemistry

- Carbohydrates, fats and proteins structure and how the chemical structure affects their properties.
- How the structure of different substances affect their taste, odor and color

Examination details

Grading scale: UG - (U,G) - (Fail, Pass)

Assessment: Compulsory attendance at the lectures. Approved final report and passed laboratory works.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Admission

The number of participants is limited to: No

Reading list

- Compendium (Applied Chemistry) from the teacher.

Contact and other information

Course coordinator: Ia Rosenlind, ia.rosenlind@food.lth.se

Course homepage: <http://www.lth.se/utbildning/tekniskt-basaar/>

Further information: The scope for this course is expressed in access education credits (fup).