KE2185 Separation Processes 7.5 credits

Separationsprocesser

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for KE2185 valid from Spring 2020

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Chemical Science and Engineering

Specific prerequisites

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

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

- Describe different separation techniques and the practical design of the apparatus (TEN1, PRO1)
- Describe the underlying principles behind different separation techniques (TEN1, PRO1)
- Apply basic principles to design specific separation processes (TEN1, LAB1)
- Motivate and critically examine the choice of a separation technique for a specific purpose (PRO1)

Course contents

The course comprises fundamentals, basic requirements, and design principles for separation processes. Detailed descriptions and analyses of common unit operations are given. The fundamental mechanisms of phase equilibria and mass and/or heat transport and how the mathematical description of these mechanisms can be used in the design are also treated, as well as matters concerning the practical design of apparatus. The course has particulor emphasis on energy efficiency and the environment.

Examination

- PRO1 - Project assignment, 1.5 credits, grading scale: P, F
- TEN1 - Written exam, 4.5 credits, grading scale: P, F
- LAB1 - Computer laborations, 1.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.