



KE2331 Pharmaceutical Technology 7.5 credits

Läkemedelsteknologi

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

Establishment

Course syllabus for KE2331 valid from Autumn 2018

Grading scale

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

Education cycle

Second cycle

Main field of study

Chemical Science and Engineering

Specific prerequisites

Courses in thermodynamics, chemical process engineering, transport processes, transport processes advanced course, or equivalent. E.g KE1160, KE1175, KE1170 and KE2070.

Language of instruction

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

Intended learning outcomes

An advanced module about the manufacture of drugs. The contents include separation processes and unit operations of relevance in the production of mainly solid pharmaceutical dosage forms. The focus is on batch-wise processes, in multi-purpose, multi-product plants, with emphasis on the influence of physico-chemical and processing conditions on the resulting product properties.

Course contents

The course focuses on manufacturing of pharmaceuticals, and cover in particular separation processes in the manufacturing of the active pharmaceutical ingredients and pharmaceutical unit operations for solid dosage forms. The course focuses on batch processing and agitated tank operations, in multipurpose multiproduct plants with emphasis on the influence of physico-chemical and processing conditions on process result and product properties. The course gives a detailed description and analysis of crystallization, agitation and mixing, distillation, drying extraction and chromatography under these conditions. The course then continues with a description of in particular solid oral dosage forms, pharmaceutical excipients, and important pharmaceutical unit operations like granulation, grinding and tableting.

Course literature

TBD

Examination

- LIT1 - Literature review, 1.5 credits, grading scale: P, F
- TEN1 - Written exam, 6.0 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.