



# SH2614 The Nuclear Fuel Cycle

## 6.0 credits

### Kärnbränslecykeln

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

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

### Establishment

The course plan applies from and including HT2023 according to school head decision: S-2022-2260 Decision date: 2022-12-29

### Grading scale

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

### Education cycle

Second cycle

### Main field of study

Engineering Physics

### Specific prerequisites

Completed degree work at undergraduate level in the main field of technology.

At least 120 credits in technology and natural sciences.

Completed courses in reactor physics and reactor technology, or equivalent knowledge.

## Language of instruction

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

## Intended learning outcomes

After passing the course, the student should be able to design a realistic, economically and environmentally thoughtful fuel cycle for a country that uses nuclear power.

## Course contents

Uranium degradation, uranium enrichment, fuel production, recycling and waste management, transportation.

## Examination

- FÄL1 - Field trips, 1.0 credits, grading scale: P, F
- INL1 - Home assignments, 1.0 credits, grading scale: P, F
- PRO1 - Project report, 2.0 credits, grading scale: P, F
- SEM1 - Seminar, 1.0 credits, grading scale: P, F
- TEN1 - Oral examen, 1.0 credits, grading scale: A, B, C, D, E, FX, 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.

The examiner, in consultation with the KTH Disability Coordinator (Funka), decides on any adapted examination for students with documented permanent impairment. The examiner may grant another examination form for reexamination of single students.

## Other requirements for final grade

Pass grade on all parts.

## 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.