



FEF3205 Plasma Diagnostics 8.0 credits

Plasmadiagnostik

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

Course syllabus for FEF3205 valid from Spring 2012

Grading scale

Education cycle

Third cycle

Specific prerequisites

Language of instruction

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

Intended learning outcomes

After completed course the students should have knowledge of the most common diagnostic techniques in laboratory and/or space plasmas.

Course contents

Magnetic diagnostics. Langmuir probes and other techniques for measurements of plasma particle flux. Measurements of plasma refractive index. Electromagnetic emission by free electrons. Electromagnetic radiation from bound electrons. Scattering of electromagnetic radiation. Measurements of ion processes.

Disposition

Self study under guidance by thesis advisor.

Course literature

Principles of Plasma Diagnostics,

Ian. H. Hutchinson, Cambridge University Press, 1987, and (optional) selected journal papers

Examination

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.

Other requirements for final grade

Final oral exam.

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.