



SH2402 Astrophysics 6.0 credits

Astrofysik

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 SH2402 valid from Spring 2012

Grading scale

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

Education cycle

Second cycle

Main field of study

Physics

Specific prerequisites

Recommended prerequisites: Previous knowledge of mathematical methods in physics and quantum physics.

Language of instruction

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

Intended learning outcomes

After the course the student should be able to:

- Explain the main phases of star evolution based on physics arguments.
- Give an account for observations of the large-scale structure of the universe and reflect over theories for the development of structure on different scales.
- Describe the most important processes affecting the astrophysical objects discussed in the course, and explain how these give rise to radiation that can be detected.
- Plan and perform simple observations, evaluate the result and suggest improvements.
- Develop the course material for use in school education.

Course contents

Electromagnetic radiation, interstellar medium, stellar evolution, structure of galaxies, creation of elements.

Course literature

Freedman & Kaufmann “Universe: Stars and Galaxies” 4th ed.

Lecture Notes.

Examination

- ANN1 - Notice, 1.0 credits, grading scale: P, F
- SEM1 - Seminar, 1.0 credits, grading scale: P, F
- TEN1 - Examination, 4.0 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.

Other requirements for final grade

One written exam (TEN1; 6 university credits).

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.