

SYLLABUS

Elementary Physics A, Highschool Supplementary Course 7.5 pre-education credits FX001T

Fysik A, gymnasiekomplettering

Course syllabus admitted: Autumn 2011 Sp 2 - Autumn 2013 Sp 2

**DECISION DATE
2011-10-07**

Elementary Physics A, Highschool Supplementary Course 7.5 pre-education credits FX001T

Fysik A, gymnasiekomplettering

Pre-university level, FX001T

| Education level | Grade scale | Subject | Subject group (SCB) |
|----------------------|-------------|---------|---------------------|
| Pre-university level | U G VG | Fysik | Physics |

Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and Na B

Selection

Examiner

Hans Weber

Course Aim

After this course, the student should have gained basic knowledge and experimental practice in Physics corresponding to the Physics A (100 credits) course at the Swedish secondary upper schools and Swedish national programs.

Contents

Physical quantities and units, conceptions, models and measurements. Fundamental mechanics, forces, moment and equilibrium. Energy, and work. Straight line motion. Motion with constant acceleration. Force, motion and projectile motion.

Geometric optics. Light propagation, reflection and refraction, image construction and optical instruments.

Fundamental electricity. Electric circuits and Kirchoff's rules. Thermodynamics, temperature, heat and heat capacity.

The laws of thermodynamics. The four forces, the universe.

Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

The teaching is given in form of lectures and compulsory laboratory work.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. There is one final written exam at the end of the course and obligatory assignments during the course. Laboratory work and laboratory reports are compulsory and have to be approved. There can be alternative examination methods.

Remarks

The course is not in credit at the study programmes. In quarter 3-4 (spring term) the course is completely internet based (Net University).

Overlap

The course FX001T is equal to MTF504

Literature. Valid from Autumn 2007 Sp 1

Bergström m.fl.: "Heureka, Fysik för gymnasieskolan, kurs ", ISBN 91-27-56721-4.

Kompendium: "Kompletteringar och laborationshandledningar till Fysik A", Institutionen för tillämpad fysik, maskin- och materialteknik, LTU

Formelsamling: Tabell-och formelsamling för Fysik A och Fysik B, Institutionen för tillämpad fysik, maskin-och materialteknik, LTU.

Course offered by

Department of Engineering Sciences and Mathematics

Items/credits

No items/credits available

Last revised

by Department of Engineering Sciences and Mathematics 2011-10-07

Syllabus established

The syllabus was established by the Department of Applied Physics and Mechanical Engineering 2007-02-28, and remains valid from autumn 2007.