

SYLLABUS

Cosmic threats 7.5 credits

F0020T

Hotet från himlen

Course syllabus admitted: Autumn 2010 Sp 1 - Autumn 2010 Sp 2

DECISION DATE
2010-02-20

Cosmic threats 7.5 credits F0020T

Hotet från himlen

First cycle, F0020T

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	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 An introductory astro course, e.g., from Arena Space or the Space Engineering programme or F0022T Physics for Poets.

Selection

The selection is based on 1-165 credits.

Examiner

Sverker Fredriksson

Course Aim

After the course, the student should understand

- what types of solid matter that can hit the earth, and where in space they come from
- what happens at a meteorite impact and what the geological and biological effects can be
- what risk human beings and nature can be exposed to, and how we can protect ourselves
- how humans have looked upon the "cosmic threats" throughout history

Contents

Phenomena in space of importance for us on earth, and their background. The creation of the earth and the moon through space bombardment. What happens when a meteorite hits the earth? Geological, biological and meteorological effects? Impacts in Sweden and the world, and how we can find them. Is there any practical use of impacts? Threats to life on earth and to earth as a planet. Asteroids and comets that might hit the earth. Mass extinctions through the ages. Human thoughts about cosmic threats throughout history. Risk and safety aspects.

Realization

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

Lectures with overviews of parts of the literature, as well as discussions of project home assignments.

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. Home assignments in project form. There can be alternative examination methods.

Overlap

The course F0020T is equal to MTF134

Literature. Valid from Autumn 2009 Sp 1

Jon Erickson, Asteroids, comets, and Meteorites - Cosmic Invaders of the Earth, Checkmark Books (not absolutely necessary).

Course offered by

Department of Engineering Sciences and Mathematics

Items/credits

Number	Type	Credits	Grade
0001	Assignment	7.5	G U 3 4 5

Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

Last revised

by Department of Applied Physics and Mechanical Engineering 2010-02-20

Syllabus established

by Department of Applied Physics and Mechanical Engineering 2004-11-15