Module title | Abbreviation
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Astrophysics | 11-A4-132-m01

Module coordinator | Module offered by
Managing Director of the Institute of Theoretical Physics and Astrophysics | Faculty of Physics and Astronomy

ECTS | Method of grading | Only after succ. compl. of module(s)
6 | numerical grade | --

Duration | Module level | Other prerequisites
1 semester | undergraduate | Admission prerequisite to assessment: successful completion of approx. 50% of exercises. Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semesters.

Contents
History of astronomy, coordinates and time measurement, the solar system, size scales in outer space, telescopes and detectors, stellar structure, stellar atmospheres, stellar evolution, final stages of stellar evolution, inter-stellar medium, structure of the Milky Way, local universe, expanding space-time, galaxies, active galactic nuclei, large-scale structure of the universe, Friedmann World Models, thermodynamics of the early universe, primordial nucleosynthesis, cosmic microwave background radiation, structure formation, inflation

Intended learning outcomes
The students are familiar with the modern world view of Astrophysics. They know methods and tools for astrophysical observations and evaluations. They are able to use these methods to plan and analyse own observations. They know the structure of the universe, e.g. of stars and galaxies and understand the process of their development.

Courses
(V + S (no information on SWS (weekly contact hours) and course language available)

Method of assessment
written examination (approx. 120 minutes)

Allocation of places
Only as part of pool of general key skills (ASQ): 15 places. Places will be allocated by lot.

Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)
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Module appears in
keinem Studiengang zugeordnet