

<b>Module title</b>		<b>Abbreviation</b>
Astrophysics		11-A4-072-m01
<b>Module coordinator</b>		<b>Module offered by</b>
Managing Director of the Institute of Theoretical Physics and Astrophysics		Faculty of Physics and Astronomy
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
6	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
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 semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.
<b>Contents</b>		
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, interstellar 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		
<b>Intended learning outcomes</b>		
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.		
<b>Courses</b> (type, number of weekly contact hours, language — if other than German)		
V + S (no information on SWS (weekly contact hours) and course language available)		
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
written examination (approx. 120 minutes)		
<b>Allocation of places</b>		
Only as part of pool of general key skills (ASQ): 15 places. Places will be allocated by lot.		
<b>Additional information</b>		
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<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)		
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<b>Module appears in</b>		
Bachelor' degree (1 major) Physics (2007) Bachelor' degree (1 major) Physics (2010) Bachelor' degree (1 major) Physics (2009) Bachelor' degree (1 major) Physics (2012) Bachelor' degree (1 major) Physics (2008) Bachelor' degree (1 major) Mathematical Physics (2009)		

Bachelor' degree (1 major) Mathematical Physics (2012)  
Bachelor' degree (1 major) Aerospace Computer Science (2011)  
Master's degree (1 major) Mathematics (2012)  
Master's degree (1 major) Physics (2010)  
Master's degree (1 major) Physics (2011)  
Master's degree (1 major) FOKUS Physics (2010)  
Master's degree (1 major) FOKUS Physics (2011)  
Master's degree (1 major) Computational Mathematics (2012)  
Bachelor's degree (1 major, 1 minor) Physics (Minor, 2008)  
Bachelor's degree (1 major, 1 minor) Physics (Minor, 2010)