

Module title		Abbreviation
Astrophysics		11-AP-152-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	--
Contents		
History of astronomy, coordinates and time measurement, the Solar System, exoplanets, astronomical scales, telescopes and detectors, stellar structure and atmospheres, stellar evolution and end stages, interstellar medium, molecular clouds, structure of the milky way, the local universe, the expanding universe, galaxies, active galactic nuclei, large-scale structures, cosmology.		
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 are familiar with the physics and development of the main astrophysical objects such as stars and galaxies.		
Courses (type, number of weekly contact hours, language – if other than German)		
V (2) + R (2) Module taught in: German or English		
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
a) written examination (approx. 90 to 120 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Language of assessment: German and/or English		
Allocation of places		
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Additional information		
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Referred to in LPO I (examination regulations for teaching-degree programmes)		
§ 22 II Nr. 1 h) § 22 II Nr. 2 f) § 22 II Nr. 3 f)		
Module appears in		
Bachelor' degree (1 major) Physics (2015) Bachelor' degree (1 major) Mathematical Physics (2015) Bachelor' degree (1 major) Aerospace Computer Science (2015) Bachelor's degree (1 major, 1 minor) Physics (Minor, 2015) First state examination for the teaching degree Grundschule Physics (2015) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2015) First state examination for the teaching degree Realschule Physics (2015)		

First state examination for the teaching degree Gymnasium Physics (2015)
 First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2015)
 First state examination for the teaching degree Mittelschule Physics (2015)
 First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2015)
 Bachelor' degree (1 major) Mathematical Physics (2016)
 Master's degree (1 major) Nanostructure Technology (2016)
 Bachelor' degree (1 major) Aerospace Computer Science (2017)
 First state examination for the teaching degree Grundschule Physics (2018)
 First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2018)
 First state examination for the teaching degree Realschule Physics (2018)
 First state examination for the teaching degree Gymnasium Physics (2018)
 First state examination for the teaching degree Mittelschule Physics (2018)
 First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018)
 First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018)
 Master's degree (1 major) Nanostructure Technology (2020)
 Bachelor' degree (1 major) Physics (2020)
 Bachelor' degree (1 major) Mathematical Physics (2020)
 Bachelor's degree (1 major, 1 minor) Physics (Minor, 2020)
 Bachelor' degree (1 major) Aerospace Computer Science (2020)
 First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020)
 First state examination for the teaching degree Grundschule Physics (2020)
 First state examination for the teaching degree Gymnasium Physics (2020)
 First state examination for the teaching degree Realschule Physics (2020)
 First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2020)
 First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020)
 First state examination for the teaching degree Mittelschule Physics (2020)