

Mapping ASIIN - Subject-Specific Criteria and PLO

SPECIALIST COMPETENCES	PLO code										
	KNO-1	KNO-2	KNO-3	SKI-1	SKI-2	SKI-3	SKI-4	SOC-1	SOC-2	ATT-1	ATT-2
They have good knowledge of classical physics (mechanics, electrodynamics, thermodynamics, vibrations, waves and optics) and are familiar with the basics of quantum, atomic and molecular, nuclear, elementary particles and solid-state physics.	√										
They are familiar with important mathematical methods used in physics and can use them to solve physics problems.		√									
They have a broad understanding of the basic principles of physics, inherent relations and mathematical formulations and, based on this, have obtained suitable methods for theoretical analysis, modeling and simulation of relevant processes.	√	√	√	√							
They are able to apply their knowledge to exemplary physics problems and studied several fields in greater depth, thus gaining the first basis for problem solving competencies.			√								
They have the basic capacity to understand physical problems. But in general this has not facilitated a deeper understanding of the current research area.	√										
They have the ability to classify independently based on physics and some interdisciplinary problems that require a target-oriented and logic-based approach, and to analyze and / or solve them using natural scientific and mathematical methods.			√	√							
They are familiar with the basic principles of experimentation, are able to use modern physics measurement methods, and are in a position to assess the significance of results correctly.					√		√		√		

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They are, in general, obtain overview knowledge in natural science subjects or other selected technical disciplines.									√		
They are able to apply their knowledge to various fields and act responsibly in their professional activities. They are also able to recognize new trends in their field of study and integrate relevant methodologies - maybe after appropriate qualifications - into their next work.							√	√	√		
They are able to expand and deepen their knowledge continuously and independently to finish the undergraduate program. They are familiar with suitable learning strategies (lifelong learning); they are particularly capable of successive Master's degree programs in principle.										√	√
They have preliminary experience concerning generic qualifications (e.g. work time agreements, study and work techniques, willingness to work together, capacity for teamwork, ability to communicate and communication techniques, rules of good scientific practice) in their degree programs able develop these skills further.						√					
They master the basic elements of special English that are relevant.						√					
They are able to solve simple scientific problems and to present their results verbally (lectures) and in writing (indicated in the Bachelor's thesis).						√	√	√			