

## Subatomic Physics 1 (C002100)

Course size (nominal values; actual values may depend on programme)

Credits 6.0      Study time 180 h      Contact hrs 52.5 h

Course offerings and teaching methods in academic year 2018-2019

A (semester 2)	English	lecture	30.0 h
		seminar: coached	22.5 h
		exercises	

Lecturers in academic year 2018-2019

Dobur, Didar	WE05	lecturer-in-charge
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Offered in the following programmes in 2018-2019

	crdts	offering
<a href="#">Bachelor of Science in Physics and Astronomy</a>	6	A
<a href="#">Preparatory Course Master of Science in Physics and Astronomy</a>	6	A

Teaching languages

English

Keywords

Nuclear physics, particle physics

Position of the course

An introduction in subatomic physics is given. On the one hand a comprehensive overview is presented that should give the Bachelor Physics a complete picture of subatomic physics. On the other hand the basis is laid for more detailed courses in Master courses.

Contents

- General concepts
- Nuclear structure
- Unstable nuclei
- Nuclear reactions
- High Energy Physics
- General concepts
- Electron scattering
- The Standard model

Initial competences

Basics of quantum mechanics

Final competences

- 1 Have the ability to start advanced courses in nuclear or high energy physics.
- 2 Have a consistent picture of the deepest structure of matter.
- 3 Have the necessary basis to take advanced courses dealing with applications of nuclear physics methods.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Lecture, seminar: coached exercises

## Learning materials and price

B.Povh, K.Rith, "Nuclei and particles: an introduction to the physical concepts"  
(Springer, 1995) (ca.60Euro)

## References

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## Course content-related study coaching

Students have individual access to the lecturer after the lectures. The lecturer is always reachable through e-mail.

## Evaluation methods

end-of-term evaluation and continuous assessment

## Examination methods in case of periodic evaluation during the first examination period

Written examination with open questions, oral examination, assignment

## Examination methods in case of periodic evaluation during the second examination period

Written examination with open questions, open book examination, oral examination, assignment

## Examination methods in case of permanent evaluation

## Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible in modified form

## Extra information on the examination methods

Theory: written (closed book) + oral  
Exercises: written (open book)  
Homework assignment

## Calculation of the examination mark

Theory: 40%  
Exercises: 40%  
Homework assignment: 20%  
Small deviations from the exact division are possible, depending on the difficulty of the questions in each category.