

t.PHMO - Physik: Einführung in die moderne Physik

Person responsible for the course: Jürg Krieg, krjg

Responsible OU:

ECTS: 1,5

Valid for: 2012/2013

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Expertise:

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Methodological skills:

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Social skills:

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Personal skills:

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Learning objectives:

Quantumphysics and Theory of Relativity, both developed at the beginning of the 20th century, build the fundamentals of physics today. The students get an introduction in the fundamental terms and models of this theory, and they understand the principal ideas of the new Modern Physics (quantumphysics).

Course content:

Quantumphysics:

Atomic models, crucial experiments, theoretical models, concepts of quantumphysics, wave particle duality, applications (H-atom)

Theory of Special Relativity:

System of inertia, moved charge in electromagnetic field, Lorentz transformation, Minkovski diagrams, momentum and energy.

Previous knowledge:

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Teaching method:

| Type of lesson: | Number of lessons per week: |
|--------------------|-----------------------------|
| Lecture | 14x2L |
| Tutorial/Practicum | |
| Block instruction | |

Assessment:

According to the table or as specified in writing by the lecture at the beginning of the semester!

| description | type | form | scope | assessment | weighting |
|---|-------------|-------------|--------------|-------------------|------------------|
| Performance records during school hours | | | | | |
| Semester end exam | | | | | |

Language of instruction:

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Instruction material:

Skript "Einführung in die Moderne Physik"

Additional literature:

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Comments:

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