Course: Photonic Devices

Course No.: physics640

Category | Type | Language | Teaching hours | CP | Semester
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Elective | Lecture with exercises | English | 3+1 | 6 | ST

Requirements for Participation:

Preparation:

Form of Testing and Examination:
Requirements for the examination (written or oral): successful work within the exercises

Length of Course:
1 semester

Aims of the Course:
To make the students understand physical and technological foundations of photonics and enable them to practically apply their knowledge in research and development.

Contents of the Course:
Optics: Rays, Beams, Waves; Fourieroptics; Light sources; Detectors; Imaging devices Waveguides, Fibers; Photonic Crystals; Metamaterials; Optical amplification; Acoustooptics, electrooptics; Photonic circuits, optical communication Applications

Recommended Literature:
A. Yariv; Photonics: Optical Electronics in Modern Communications (Oxford Univ. Press 6th edition 2006)
C. Yeh; Applied Photonics (Academic Press, 1994)
R. Menzel; Photonics (Springer, Berlin 2001)

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