

modulation

* Advanced photonic semiconductor components: Quantum dots, wires, quantum cascade lasers ...

Initial competences

Basic knowledge quantum physics

Basic knowledge semiconductor physics

Final competences

- 1 Have insight in the operation of advanced photonic semiconductor components.
- 2 Being able to design basic semiconductor components.
- 3 Understand some advanced techniques for the fabrication of photonic semiconductor components.

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

Seminar, Lecture

Study material

Type: Handbook

Name: Physics of Photonic Devices, 2nd edition

Indicative price: € 180

Optional: yes

Language : English

Author : Shun Lien Chuang

ISBN : 978-0-47029-319-5

Available in the Library : Yes

Usability and Lifetime within the Course Unit : intensive

Additional information: The book is available through the library

References

"Essentials of Semiconductor Physics", Tom Wenckebach

"Physics of Optoelectronic Devices", Shun Lien Chuang

Course content-related study coaching

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Oral assessment

Examination methods in case of periodic assessment during the second examination period

Oral assessment

Examination methods in case of permanent assessment

Oral assessment, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible in modified form

Extra information on the examination methods

During examination period: written open-book exam with oral defense; written open-book exam - problems

During semester: graded project reports.

Calculation of the examination mark

Project at the beginning of second half of semester. The final report of this assignment will be evaluated during an oral discussion. A partial exemption can be obtained for a maximum of 35% of the grand total. At the end of the semester - an oral examination, prepared in a written way with a minimum of 65% of the grand total with open book will be organized.

