

# **ELEC-E3210**

# **Optoelectronics**

**Spring 2022**

**Markku Sopanen**

Lecturer	Professor Markku Sopanen, room 4188, Micronova markku.sopanen[at]aalto.fi
Lectures	Tue 12:15-14:00, Micronova small seminar room Thu 12:15-14:00, Micronova small seminar room
Quizzes	Tue 13:15, online in MyCourses
Exercises	Tue 14:15-16:00, Micronova small seminar room
Exam	Jun 2, 13:00-16:00, AS 1, Maarintie 8
Webpage	<a href="https://mycourses.aalto.fi/course/view.php?id=32054">https://mycourses.aalto.fi/course/view.php?id=32054</a>

Exam (60%) + quizzes (20%) + exercises (20%)

**OR**

Exam only

- Exam has 5/6 questions: 1 about explanation of definitions and phenomena, 2-3 essay questions and 1-2 calculation problems

**OR**

The same options with exam replaced by written lecture summary

- Contact the lecturer personally/by email for instructions on writing and the schedule

Five (5) exercise sessions. The solved exercises can be returned to MyCourses return box every week. The problems are given one week earlier. There is no exercises during the first week.

There will also be a weekly quiz (total of 5) about the topics covered during the previous week. Similar as in Semiconductor Physics. The quizzes are in MyCourses at 13:15 every Tuesday (not the first week).

The exercises and quizzes count for 20% (each) of the points for the exam. The extra points are valid for one year from the start of the course.

Table of constants will be available on the course webpage.

- **Most closely follows the book**
  - Pallab Bhattacharya, Semiconductor Optoelectronic Devices, 2nd Ed., Prentice Hall, New Jersey, 1997.
- **Also very well covered by**
  - Jasprit Singh, Semiconductor Optoelectronics: Physics and Technology, McGraw-Hill, Singapore, 1995.