

ELEC-E3210

Optoelectronics

Spring 2019

Markku Sopanen

Lecturer	Professor Markku Sopanen, room 4188, Micronova markku.sopanen[at]aalto.fi
Assistant	Iurii Kim
Lectures	Wed 10:15-12:00, Micronova, large seminar room Thu 12:15-14:00, Micronova, large seminar room
Exercises	Thu 14:15-16:00, Micronova, large seminar room
Exam	(not confirmed yet)
Webpage	https://mycourses.aalto.fi/course/view.php?id=20901

Exam (70%) + exercises (30%)

OR

Exam only

- Exam has 5/6 questions: 1 explanation of definitions and phenomena, 1-3 essay questions, 1-3 calculation problems
- You can bring a **hand-written** sheet of A4 paper (both sides can be used) to the exams, no need to remember equations – focus on phenomena and device operation principles

OR

The same options with exam replaced by weekly summaries

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

Five (5) exercise sessions.

During each session the problems can be solved until the end of session (4 pm). Please start thinking and solving the problems already at home since otherwise time is too short.

Written solutions can also be brought to the session. The assistant will check the solutions when he/she has instructed others for start.

The problems count for 30% 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.