

ELEC-E8700 Principles and Fundamentals of Lighting (5 cr)

Autumn 2021

LECTURES: Weeks 37 - 50 (16.9. – 9.12.2021)
Thursdays, 14:15-16:00
Place: Online (via Zoom)

LABORATORY EXERCISES: Weeks 41 (11.10.–15.10.) and 47 (22.11.– 26.11.)

COURSE EXAMINATION: Friday, December 17th, 16:30-18:30
Place: Online

LITERATURE: Handouts (theory, exercises and lecture slides)

REQUIREMENTS: Examination, homework exercises, teamwork project and laboratory exercises

WWW: mycourses.aalto.fi
oodi.aalto.fi

RESPONSIBLE TEACHER: D.Sc. (Tech.) Paulo Pinho, University Lecturer
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<u>Week</u>	<u>Day</u>	<u>Date</u>	<u>Time</u>	<u>Place</u>	<u>Topics</u>
37	Thu	16/09/2021	14:15-16:00	Online	Welcome! Introduction to the course A brief history of lighting
38	Thu	23/09/2021	14:15-16:00	Online	Lighting units, quantities and symbols Exercise 1 – Lighting units, quantities and symbols
39	Thu	30/09/2021	14:15-16:00	Online	Lighting basic laws Exercise 2 – Basic laws
40	Thu	07/10/2021	14:15-16:00	Online	Light measurement instruments Quick quiz 1 – Units, symbols and quantities / Basic laws
41	Thu	14/10/2021	14:15-16:00	Online	Light and vision Quick quiz 2 - Light measurement instruments
42	Thu	21/10/2021	14:15-16:00	Online	Light sources Teamwork – Introduction Quick quiz 3 – Light and Vision
43	Thu	28/10/2021	14:15-16:00	Online	No lecture (evaluation week)
44	Thu	04/11/2021	14:15-16:00	Online	Introduction to LEDs
45	Thu	11/11/2021	14:15-16:00	Online	Exercise 3 – Light sources and lighting measurements Quick quiz 4 – Light sources / LEDs
46	Thu	18/11/2021	14:15-16:00	Online	Lighting design Lighting calculation software
47	Thu	25/11/2021	14:15-16:00	Online	Introduction to colorimetry
48	Thu	02/12/2021	14:15-16:00	Online	Exercise 4 – Colorimetry Quick quiz 5 – Calculation software / Colorimetry / Lighting design
49	Thu	09/12/2021	14:15-16:00	Online	Teamwork seminar Course wrap-up
50	Fri	17/12/2021	16:30-18:30	Online	Course examination