

Title <b>Elements of optronics</b>	Code <b>10102553210102202475</b>
Field <b>Mechatronics</b>	Year / Semester <b>1 / 2</b>
Specialty -	Course <b>core</b>
Hours Lectures: <b>1</b> Classes: -    Laboratory: <b>1</b> Projects / seminars: -	Number of credits <b>2</b>
	Language <b>polish</b>

**Lecturer:**

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**Status of the course in the study program:**

Obligatory

**Assumptions and objectives of the course:**

Introduction to optoelectronics, laser technology, interferometry, holography and fiberoptics.  
To learn the construction, operation and application of optoelectronic elements and to select the appropriate ones to use in a technical application.

**Contents of the course (course description):**

incoherent radiation sources, light emitting diodes, principles of lasers, laser radiation properties, optical and termal sensors, photodiodes, photomultipliers, CCD camera, ICCD camera, interferometers, interferometry, fiber optics, holography, optical and laser spectroscopy.

**Introductory courses and the required pre-knowledge:**

Basic physics knowledge.

**Courses form and teaching methods:**

Lecture course and student laboratory.

**Form and terms of complete the course - requirements and assessment methods:**

Written and oral.

**Basic Bibliography:**

**Additional Bibliography:**