

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Fundamentals of lighting engineering		Code 1010324391010320832
Field of study Electrical Engineering	Profile of study (general academic, practical) (brak)	Year /Semester 5 / 9
Elective path/specialty Lighting Engineering	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time, part-time) part-time	
No. of hours Lecture: - Classes: - Laboratory: - Project/seminars: 9		No. of credits 1
Status of the course in the study program (Basic, major, other) (brak)		(university-wide, from another field) (brak)
Education areas and fields of science and art technical sciences Technical sciences		ECTS distribution (number and %) 1 100% 1 100%
Responsible for subject / lecturer: Małgorzata Zalesińska Ph.D. email: Malgorzata.Zalesinska@put.poznan.pl tel. 61 6652398 Faculty of Electrical Engineering ul. Piotrowo 3A 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Knowledge of the basics of lighting engineering: the calculation and the measurement of light parameters, lighting equipment.
2	Skills	The ability to use knowledge in lighting engineering to carry out computations, measurement and evaluation of lighting parameters. Ability to effectively self-education in a field related to the chosen field of study.
3	Social competencies	Is aware of the need to broaden their competence, willingness to work together as a team.
Assumptions and objectives of the course: Grounding knowledge of fundamentals of lighting engineering.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. List and describe the method of calculation of basic lighting parameters. - [[K_W06 ++,K_W14 +, K_W15 +++]]		
Skills:		
1. Perform calculations of basic lighting simplified methods. - [[K_U17 ++, K_U22 +]]		
Social competencies:		
1. . Student understands and knows the need continuous training opportunities, improving professional skills, personal and social. Able to work in a group. Able to share and coordinate the work between team members. - [[K_K03 +]]		
Assessment methods of study outcomes		
Project: evaluate the knowledge and skills associated with the implementation of the project. Get extra points for the activity in the classroom, especially for the following: ability to work within a team performing a task specific practice in the laboratory, developed aesthetic diligence reports and tasks, the self-study.		
Course description		

Calculation of lumines flux. Determination of illuminance by a point. Calculation of luminance.		
Basic bibliography:		
1. Bąk J., Pabiańczyk W.: Podstawy techniki świetlnej. Wyd. Pol. Łódzkiej, Łódź 1994.		
2. Żagan W.: Podstawy techniki świetlnej. Ofic. Wyd. Pol. Warszawskiej, Warszawa 2005		
3. Technika Świetlna '09. Poradnik ? Informator. Wyd. PKOŚ, Warszawa 2009		
Additional bibliography:		
1. Lighting Handbook, Reference & Application. IES of North America, New York 2010		
Result of average student's workload		
Activity	Time (working hours)	
1. Participation in project activities	9	
2. Participation in consultation.	9	
3. Participation for colloquium	7	
4. Colloquium	2	
Student's workload		
Source of workload	hours	ECTS
Total workload	27	1
Contact hours	20	1
Practical activities	16	1