

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Computer aided design		Code 1010325341010322818
Field of study Electrical Engineering	Profile of study (general academic, practical) (brak)	Year /Semester 2 / 4
Elective path/specialty Lighting Engineering	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: Second-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: dr inż. Krzysztof Wandachowicz email: Krzysztof.Wandachowicz@put.poznan.pl tel. 61 6652585 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 and computer science. Knowledge of basic tools used in CAD programs to create objects.
2	Skills	The ability to draw and create objects in CAD programs. Ability to choose lighting equipment to create illumination of buildings.
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: Knowledge of environment, basic tools and possibilities of 3ds MAX program. Ability to create computer visualizations of illumination.		
Study outcomes and reference to the educational results for a field of study		
Knowledge: 1. Knowledge of basic functions and possibilities of 3ds MAX program. Knowledge of lighting equipment used to illuminate buildings. - [KW_13++, KW_18 ++]		
Skills: 1. Can create computer visualization of building - [KU_03++, KU_12]		
Social competencies: 1. Is aware of and understands the importance and impact of non-technical aspects of electrical engineering activities, including the impact of light and lighting on the environment and the consequent responsibility for decisions. Can work creatively. - [KK_01++]		
Assessment methods of study outcomes		
Assessment of the knowledge and skills associated with the implementation of the project.		
Course description		
Understanding the issues related to computer visualizations of building's illumination. Creation of visualization illumination of the buildings. Assessment of luminance distribution on the facade of the building.		

Basic bibliography:		
1. Żagan W.: Iluminacja obiektów. Ofic. Wyd. Pol. Warszawskiej, Warszawa 2003.		
2. Kelly L. Murdock 3ds MAX 2012 Helion 2012		
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 consultations.	6	
3. Preparation of the concept and development of computer visualization.	9	
Student's workload		
Source of workload	hours	ECTS
Total workload	24	1
Contact hours	15	1
Practical activities	24	1