

<b>STUDY MODULE DESCRIPTION FORM</b>		
Name of the module/subject <b>Diploma seminar</b>		Code <b>1010321261010320081</b>
Field of study <b>Electrical Engineering</b>	Profile of study (general academic, practical) <b>(brak)</b>	Year /Semester <b>3 / 6</b>
Elective path/specialty <b>Light Engineering</b>	Subject offered in: <b>polish</b>	Course (compulsory, elective) <b>obligatory</b>
Cycle of study: <b>First-cycle studies</b>	Form of study (full-time, part-time) <b>full-time</b>	
No. of hours Lecture: - Classes: - Laboratory: - Project/seminars: <b>1</b>		No. of credits <b>3</b>
Status of the course in the study program (Basic, major, other) <b>(brak)</b>		(university-wide, from another field) <b>(brak)</b>
Education areas and fields of science and art <b>technical sciences</b>		ECTS distribution (number and %) <b>3 100%</b>
<b>Responsible for subject / lecturer:</b> prof. Konrad Domke email: konrad.domke@put.poznan.pl tel. 6652397 Wydział Elektryczny ul. Piotrowo 3A 60-965 Poznań		
<b>Prerequisites in terms of knowledge, skills and social competencies:</b>		
1	<b>Knowledge</b>	Knowledge of the basics of lighting technology: the calculation and measurement of basic lighting, lighting equipment, general requirements for lighting design. Basic knowledge of computer science. Basic knowledge of physics, electrical engineering, and thermometry.
2	<b>Skills</b>	The ability to use knowledge in lighting technology 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	<b>Social competencies</b>	Is aware of the need to expand their competence, ready to work together as a team
<b>Assumptions and objectives of the course:</b> Preparing for a future independent thesis work		
<b>Study outcomes and reference to the educational results for a field of study</b>		
<b>Knowledge:</b> 1. Use knowledge of lighting techniques mainly in the selection of lighting systems, evaluating technical feasibility and operational - [K_W15 +++]		
<b>Skills:</b> 1. Analyze the psychophysiological and technical requirements for the selection and design of interior lighting and outdoor lighting - [K_U23 ++] 2. Develop documentation on lighting design and prepare presentation with a discussion of the results of this task - [K_U23 ++]		
<b>Social competencies:</b> 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 - [K_K01 ++] 2. Able to work in a group. Able to share and coordinate the work between team members - [K_K03 ++]		
<b>Assessment methods of study outcomes</b>		
Verification of progress in the development of the thesis topic on the basis of the presentation. Assessment of the knowledge and skills related to the execution of the assignment. Get extra points for the activity in the classroom, the organizational skills, ability to work within a team developed aesthetic care tasks.		

<b>Course description</b>		
Content directly related to the topic of the final work. Formal and substantive aspects of the preparation of the thesis.		
<b>Basic bibliography:</b>		
1. Bąk J., Pabiańczyk W.: Podstawy techniki świetlnej. Wyd. Pol. Łódzkiej, Łódź 1994. 2. Technika Świetlna. Poradnik. PWT, Warszawa 1960. 3. Laboratorium z techniki świetlnej. Praca zbiorowa. Wyd. Pol. Pozn. nr 1792, Poznań 1989 4. Żagan W.: Podstawy techniki świetlnej. Ofic. Wyd. Pol. Warszawskiej, Warszawa 2005 5. Hauser J.: Elektrotechnika ? Podstawy elektrotermii i techniki świetlnej, Wyd. PP, Poznań, 2006 6. Dybczyński Wł.: Miernictwo promieniowania optycznego. Wyd. Pol. Białostockiej, Białystok 1996 7. Wiśniewski A.: Elektryczne źródła światła. Oficyna Wydawnicza Politechniki Warszawskiej. Wydanie I , 2010 8. Helbig E: Podstawy fotometrii. WNT, Warszawa 1975. 9. Bunting F., Fraser B., Murphy C.: Profesjonalne zarządzanie barwą, wydanie II. Helion 2006, 10. Hering M.: Termokinytyka dla inżynierów. WNT, Warszawa 1980		
<b>Additional bibliography:</b>		
1. Technika Świetlna ?09. Poradnik ? Informator. Wyd. PKOś, Warszawa 2009 2. Lighting Handbook, Reference ;Application. I ES of Nofth America, New York 2010 3. Normy przedmiotowe		
<b>Result of average student's workload</b>		
Activity	Time (working hours)	
1. participation in seminar classes	15	
2. participate in the consultations on the seminar	15	
3. preparing material for the thesis	30	
<b>Student's workload</b>		
Source of workload	hours	ECTS
Total workload	60	3
Contact hours	45	2
Practical activities	30	2