STUDY MODULE DESCRIPTION FORM

Name of the module/subject **MSc seminar**		Code **1010832131010830541**
Field of study **Electronics and Telecommunications**	Profile of study (general academic, practical) **general academic**	Year /Semester **2 / 3**
Elective path/specialty **Telecommunication Systems**	Subject offered in: **Polish**	Course (compulsory, elective) **obligatory**
Cycle of study: **Second-cycle studies**	Form of study (full-time,part-time) **full-time**	
No. of hours Lecture: **-** Classes: **-** Laboratory: **-** Project/seminars: **1**		No. of credits **20**
Status of the course in the study program (Basic, major, other) **other**	(university-wide, from another field) **from field**	
Education areas and fields of science and art **technical sciences**		ECTS distribution (number and %) **20 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Has extended, in-depth knowledge of those branches of mathematics which are used in formulating and solving problems in electronic and telecommunications. [K2_W00] Has a wide, systematic knowledge, with necessary mathematical background, of ICT networks and signal transmission methods. [K2_W13] Has a systematic knowledge, with necessary mathematical background, of traffic theory and traffic engineering; of design, dimensioning and optimization of networks and network systems. [K2_W11]
2	**Skills**	Is able to prepare a scientific paper or technical report and give a presentation (in English or in Polish) on solving a problem in the area of electronics and/or telecommunication; is able to participate in a discussion related to the presented problem. [K2_U02] Is able to communicate freely in English. Is able to discuss professional matters in English; is able to use knowledgeably English language sources (books, technical and scientific journals, application notes, catalogues, instructions, standards, etc.). [K2_U01]
3	**Social competencies**	Is aware of the limitations of his/her current knowledge and skills; is committed to lifelong learning. [K2_K04] Is aware of the impact electronics and ICT systems and networks will have on the development of the information society. [K2_K07]

Assumptions and objectives of the course:

Preparation of MSC thesis. Familiarizing students with the methods of presentation of the engineering works.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Has a systematic knowledge, with the necessary theoretical background, of optimization methods used in solving engineering problems. - [K2_W03]

2. Has a wide, systematic knowledge, with necessary mathematical background, of ICT networks and signal transmission methods. - [K2_W13]

Skills:

1. Is able to formulate and edit a scientific/technical thesis. Is familiar with the typical structure of such thesis (M.Sc. thesis). Is able to use foreign language literature. Is able to synthesize and evaluate knowledge from numerous resources. Is able to formulate the problem which he/she next describes and solves, and to produce reliable results with known statistical value. - [K2_U07]

2. Is able to analyze, design, construct and exploit advanced telecommunications systems and various networks and devices which are part of them, ensuring that the designed systems and networks will have required technical parameters. - [K2_U16]

Social competencies:
1. Is aware of the necessity to approach solving technical problems with responsibility and professionalism. - [K2_K05]
2. Demonstrates responsibility for designed electronic and telecommunication systems. Is aware of the hazards they pose for individuals and communities if they are improperly designed or produced. - [K2_K06]

Assessment methods of study outcomes
Credit on the basis of the prepared, 20-30 minute presentation.

Course description
1. Requirements concerning MSC thesis. 2. Ways of presenting the results of design works 3. Rhetoric of presentation of design works . 4. Ways of realization of team-works. 5. Analysis and optimization of the technical problem solution.

Basic bibliography:

Additional bibliography:

Result of average student's workload

Activity	**Time (working hours)**
1. Seminars	30
2. Preparation of MSC thesis	460
3. Preparation for presentations	10

Student's workload

Source of workload	**hours**	**ECTS**
Total workload	500	20
Contact hours	35	1
Practical activities	500	20