



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Pre-Diploma Seminar [S2Teleinf2-SzliUM>SP]

### Course

Field of study

Teleinformatics

Year/Semester

1/2

Area of study (specialization)

Artificial intelligence and machine learning

Profile of study

general academic

Level of study

second-cycle

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

75

### Number of credit points

5,00

### Coordinators

dr hab. inż. Piotr Zwierzykowski prof. PP  
piotr.zwierzykowski@put.poznan.pl

dr hab. inż. Adrian Kliks prof. PP  
adrian.kliks@put.poznan.pl

### Lecturers

### Prerequisites

Knowledge: A student starting this subject should have basic knowledge, skills and competences acquired in earlier years of study, enabling him to complete his master's thesis. Skills: A student starting this subject should have basic knowledge, skills and competences acquired in earlier years of studies, enabling him to complete his master's thesis. Social Competencies: In addition, in terms of social competences, the student must demonstrate such attitudes as honesty, responsibility, perseverance, cognitive curiosity, creativity, personal culture, and respect for other people..

### Course objective

The main goal is for students to carry out specific scientific research or a complex project in the field of ICT and to help them complete their master's thesis.

### Course-related learning outcomes

Knowledge:

1. Has extended and in-depth knowledge of modern solutions in the field of data transmission systems, their processing, wireless networks and software engineering [K2\_W02]
2. Understands the methodology of designing complex ICT systems; knows tools for designing and simulating ICT systems [K2\_W04]
3. Knows modern programming languages and software engineering principles in the context of ICT systems [K2\_W04]
4. Has knowledge of development trends and the most important new achievements in the field of ICT [K2\_W07]
5. Has in-depth knowledge of information processing and security in ICT systems [K2\_W08]

#### Skills:

1. Is able to obtain information from literature, databases and other sources, integrate this information, interpret it and critically evaluate it in order to solve projects in the field of modern ICT systems [K2\_U01]
2. Is able to work individually and in a team to solve problems and issues related to topics related to modern aspects of ICT; can assess the time consumption of a task; is able to lead a small team to complete a task [K2\_U02]
3. Is able to prepare detailed documentation of the results of carrying out design or research tasks in the field of ICT systems; is able to prepare a study containing a discussion of these results [K2\_U03]
4. Is able to prepare and present a presentation on the implementation of a design or research task and lead a discussion regarding the presentation [K2\_U04]
5. Is able to assess the usefulness and possibility of using new achievements in ICT systems containing innovative solutions [K2\_U10]
6. Is able to determine the directions of further learning and implement the self-education process in the context of ICT systems [K2\_U11]

#### Social competences:

1. In the context of ICT systems, is ready to recognize the importance of knowledge in solving problems [K2\_K01]
2. Due to the dynamic development of ICT techniques, he understands and is ready to fulfill various professional roles responsibly [K2\_K06]

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

#### Summary rating:

Checking the assumed learning outcomes is carried out by:

1. continuous assessment, through students reporting on the progress of work related to the completion of their diploma thesis,
2. assessment of the increase in the ability to use the learned principles and methods,
3. assessment of the quality of the prepared documentation and timeliness of implementation of individual tasks,
4. if the work is carried out as a team - assessment of teamwork skills.

The passing threshold is 50% of the points determined by the instructor for the implementation of individual stages of the diploma thesis; points obtained for individual assessed aspects are added up.

Grading scale: <50% - 2.0 (ndst); 50% to 59% - 3.0 (dst); 60% to 69% - 3.5 (dst+); 70% to 79% - 4.0 (db); 80% to 89% - 4.5 (db+); 90% to 100% - 5.0 (bdb).

### Programme content

The subject of a master's thesis is most often the implementation of a research or design and implementation project defined by the thesis supervisor

### Course topics

The subject of a master's thesis is most often the implementation of a research or design and implementation project defined by the thesis supervisor. The project is carried out under the supervision of the promoter or supervisor and a supervisor appointed by the promoter. This task may be the design, implementation and implementation of an ICT system based on indicated technologies or solutions (including implementation and tests) of the research problem.

A well-run project should be based on a recognized project implementation methodology, and the progress of implementation should be visible with appropriate indicators, models and effects. The final result of the project is a report (publication) on the implementation of scientific research, working prototype software or fully functional prototypes of the developed devices. Additionally, the project's appendix includes its technical and operational documentation..

### Teaching methods

Consultations on ongoing projects, workshops, discussions regarding presented diploma projects

### Bibliography

Basic:

Literature on the subject, indicated by the course tutor and found by the student in the bibliographic databases indicated

Additional:

Additional literature on the subject, indicated by the course tutor and found by the student in the bibliographic databases indicated

### Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,00
Classes requiring direct contact with the teacher	75	3,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	50	2,00