



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Master's thesis [S2ETI1>PDM]

Course

Field of study

Education in Technology and Informatics

Year/Semester

2/3

Area of study (specialization)

–

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

75

Other (e.g. online)

0

Tutorials

0

Projects/seminars

0

Number of credit points

20,00

Coordinators

dr hab. Dobrosława Kasproicz prof. PP
dobroslaw.kasproicz@put.poznan.pl

Lecturers

Prerequisites

Extended and in-depth knowledge of mathematics, physics and chemistry needed in the technical area, useful for formulating and solving complex tasks in the field of technical and IT education. The student has knowledge of computer-aided technical education, knows the basic methods, techniques and tools used in solving complex engineering tasks in a selected area of physics, computer science and technology. He can use the acquired knowledge to describe processes, create models and write algorithms. Can obtain information from literature, databases and other sources (in the mother tongue and in English), integrate it, interpret and critically evaluate it, draw conclusions and formulate and exhaustively justify opinions. The student acts in accordance with the principles of professional ethics; is responsible for the reliability of the obtained results and their interpretation; understands the need and knows the possibilities of continuous updating and complements knowledge and the need to improve professional and social competences

Course objective

The aim of the classes is to prepare the master's degree for the preparation of the master's thesis, in particular, the implementation of research for the thesis with the use of appropriate research methodology / technique, analysis and discussion of research results, formulation of final conclusions of the master's thesis and preparation for presentation.

Course-related learning outcomes

Knowledge:

1. has detailed knowledge of physics, materials science and computer science needed to formulate and solve detailed tasks related to the thesis [k2_w01], [k2_w11], [k2_w14].
2. has knowledge of selected issues in physics, materials science and computer science that are used in modern technologies [k2_w14], [k2_w15], [k2_w16].

Skills:

1. has the ability to self-educate and can interpret scientific texts [k2_u02], [k2_u03].
2. can plan and carry out experiments with the use of selected research methods, interpret the obtained results and draw conclusions [k2_u09], [k2_u10], [k2_u11], [k2_u12].
3. is able to prepare and edit in the mother tongue a thesis on a detailed issue related to the thesis [k2_u01], [k2_u02], [k2_u03], [k2_u04], [k2_u05].

Social competences:

1. acts in accordance with the principles of professional ethics; is responsible for the reliability of the obtained results and their interpretation [k2_k02].
2. understands the need and knows the possibilities of continuous updating and complements the

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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W01-W02 Assessment of the individual master's work in the range of 50.1% -70.0% (3)

preparation and development of results, 70.1% -90.0% (4)

evaluation of the analysis and discussion of research results and from 90.1% (5)

evaluation of the edited master's thesis

U01-U03 Assessment of the individual master's work in the range of 50.1% -70.0% (3)

preparation and development of results, 70.1% -90.0% (4)

evaluation of the analysis and discussion of research results and from 90.1% (5)

evaluation of the edited master's thesis

K01-K02 Assessment of the individual work of the master's student in the range of 50.1% -70.0% (3)

preparation and development of results, 70.1% -90.0% (4)

evaluation of the analysis and discussion of research results and from 90.1% (5)

evaluation of the edited master's thesis

Programme content

Classes conducted under the supervision of the master's thesis supervisor: determining the scope and plan of the thesis, methodology of research, development and analysis of research results and editing the master's thesis.

Teaching methods

none

Bibliography

Basic

1. Scientific literature indicated by the supervisor of the thesis.

Additional

1. D.Halliday, R.Resnick, J.Walker, Podstawy fizyki, t. 1-5, PWN, Warszawa 2003.
2. J. Orear, Fizyka, t. 1-2, WNT, Warszawa 1998.

Breakdown of average student's workload

| | Hours | ECTS |
|--|-------|-------|
| Total workload | 300 | 20,00 |
| Classes requiring direct contact with the teacher | 152 | 0,00 |
| Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation) | 200 | 0,00 |