



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Master's thesis

Course

Field of study

Education in Technology and Informatics

Area of study (specialization)

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

polish

Requirements

compulsory

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

75

Tutorials

Projects/seminars

Number of credit points

20

Lecturers

Responsible for the course/lecturer:

dr hab. Dobrosława Kasprowicz

Responsible for the course/lecturer:

dobroslawa.kasprowicz@put.poznan.pl

Faculty of Material Science and Technical

Physics

Piotrowo 3, 60-696 Poznań

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 knowledge and the need to improve professional and social competences [K2_K01], [K2_K04].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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

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, Warszawa1998.

Breakdown of average student's workload

	Hours	ECTS
Total workload	300	20,0
Classes requiring direct contact with the teacher	152	
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	200	

¹ delete or add other activities as appropriate