



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Graduation seminar

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)

Tutorials

Projects/seminars

30

Number of credit points

6

Lecturers

Responsible for the course/lecturer:

dr hab. Dobrosława Kasprowicz

Responsible for the course/lecturer:

dobroslaw.kasprowicz@put.poznan.pl

Faculty of Material Science and Technical

Physics

Piotrowo 3, 60-696 Poznań

Prerequisites

The student has an extended and deepened knowledge of mathematics, physics, chemistry needed in the technical area, useful for formulating and solving complex tasks in the field of technical and IT education. Student has knowledge of computer-aided technical education; knows the basic methods, techniques and tools used to solve complex engineering tasks in a selected area of physics, computer science and technology. He can use the acquired mathematical 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 of their work and their



interpretation, understands the need and knows the possibilities of continuous updating and supplementing the knowledge and the need to improve professional and social competences.

Course objective

Preparing the student for the presentation of the results of the diploma thesis during the graduate examination. Preparing a student for the graduate examination.

Course-related learning outcomes

Knowledge

1. has knowledge useful for formulating and solving educational and technical tasks [K2_W01].
2. 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].
3. has knowledge of selected issues in physics, materials science and computer science applicable in modern technologies [K2_W14], [K2_W15], [K2_W16].

Skills

1. has the ability to self-educate and is able to interpret scientific texts and define the directions of learning [K2_U02], [K2_U03].
2. is able to communicate using various information and communication techniques; can prepare materials for the presentation of a selected issue, also with the use of new IT techniques [K2_U04], [K2_U05], [K2_U06], [K2_U14].
3. is able to prepare and present, in the mother tongue and in English, an oral presentation on a detailed issue in the field of computer science, materials science and technology and take part in a discussion on the presentation [K2_U05], [K2_U04], [K2_U05], [K2_U06], [K2_U14].

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].
3. is aware of the social role of a technical university graduate, in particular understands the need to formulate and transfer information and opinions on technological achievements and other aspects of engineering activities to the society [K2_K05], [K2_K07].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Effect	Form of evaluation	Evaluation criteria
W01-W03	Assessment of individual oral presentation	50.1% -70.0% (3)
	with the use of a computer program	70.1% -90.0% (4)



and assessment of answers to questions about the presentation. from 90.1% (5)

U01-U03 Assessment of individual oral presentation 50.1% -70.0% (3)

with the use of a computer program 70.1% -90.0% (4)

and assessment of answers to questions about the presentation. from 90.1% (5)

K01-K03 Assessment of individual oral presentation 50.1% -70.0% (3)

using a computer program 70.1% -90.0% (4)

and assessment of answers to questions about the presentation. from 90.1% (5)

Programme content

1. Getting acquainted with selected issues in the field of physics, chemistry, materials science and computer science concerning individual master's theses.

2. Getting acquainted with the basics of measurement techniques used in the implementation of individual master's theses.

3. Ethical principles related to the editing of the master's thesis and the presentation of the results.

Teaching methods

Seminar, consultations on implemented projects, workshops - discussions on the presented diploma theses

Bibliography

Basic

1. Selected individually by the student in accordance with the subject of the diploma thesis.

Additional

1. D. Halliday, R. Resnick, J. Walker, Fundamentals of physics, vol. 1-5, PWN, Warsaw 2003.

2. J. Orear, Fizyka, vol. 1-2, WNT, Warsaw 1998.

Breakdown of average student's workload

	Hours	ECTS
Total workload	150	6,0
Classes requiring direct contact with the teacher	32	
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	118	

¹ delete or add other activities as appropriate