COURSE DESCRIPTION CARD - SYLLABUS

Course name
Master's Thesis [S2FT2>PrDM]

Course

Field of study
Technical Physics

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
elective

Number of hours

Lecture
0

Laboratory classes
30

Other
0

Tutorials
0

Projects/seminars
0

Number of credit points

8,00

Coordinators

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Lecturers

Prerequisites

The student has knowledge and skills, necessary to prepare a diploma thesis, acquired during educational activities in semesters 1-7.

Course objective

To deepen knowledge and skills related to solving engineering problems in the field of material engineering and presentation skills of these works' outcomes.

Course-related learning outcomes

Knowledge:
Has knowledge related to selected topics from the field of high vacuum techniques and low temperatures used to analyze mechanisms of physical, chemical, and technological processes
Knows the current state of the art and is familiar with the latest development trends in nanotechnology, optoelectronics, bioelectronics, quantum engineering and computer simulation of physical processes

Skills:
Can prepare and present an oral presentation in Polish and in foreign language about topics from the field of technical physics and actively participate in a discussion/debate
Can translate the achievements of physics described in the literature into the language of technology

Social competences:
Is ready to act according to professional ethics, including responsibility for the reliability of the obtained results of their work and its interpretation, as well as evaluating the work of others
Understands the need for and knows the possibilities of continuous training - improving professional, personal and social competence; is aware of the need to consult experts when solving engineering tasks beyond own competence

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The course credit is based on the assessment of:
- the progress in the master's thesis, including a literature review related to the scientific problem being addressed,
- the comparison of own results with the prepared literature review,
- consistency (timeliness) in completing the master's thesis work.

Programme content

In line with the topic of the diploma thesis.

Course topics

In line with the topic of the diploma thesis.

Teaching methods

Discussion with the graduate on current problems, clarifications on the spot or pointing to sources in the literature on the topic to solve tasks.

Bibliography

Basic:
Scientific and technical literature necessary for the preparation of the thesis.

Additional:
Scientific and technical literature necessary for the preparation of the thesis.

Breakdown of average student's workload

	Hours	ECTS
Total workload	200	8,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	170	7,00