POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Diploma Seminar [S2FT1>Semdypl]

Course

Field of study	Year/Semester
Technical Physics	2/3
Area of study (specialization)	Profile of study
–	general academic
Level of study	Course offered in
second-cycle	polish
Form of study	Requirements
full-time	compulsory

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
0	0	0

Tutorials	Projects/seminars
30	0

Number of credit points

6,00

Coordinators	Lecturers
prof. dr hab. Alina Dudkowiak alina.dudkowiak@put.poznan.pl	

Prerequisites

Knowledge of experimental physics and expertise in nanotechnology and functional materials. Ability to solve physical problems based on your knowledge, ability to obtain information from indicated sources. Understanding the need to expand own competences, willingness to cooperate within the team.

Course objective

1. Provide students specializing in nanotechnology with inorganic and organic materials and functional materials with detailed knowledge of the test materials. Familiarize yourself with the principle of operation of specialized apparatus for the characterization of nanostructures, ultra-thin functional layers and monocrystals and how to analyze the results obtained. 2. Familiarize students with the rules for drafting master"s thesis. 3. Develop students" skills in analyzing results, preparing research reports and publicly presenting the results and discussing them in the forum. 4. Shaping students" teamwork skills competences, willingness to cooperate within the team.

Course-related learning outcomes

Knowledge:
student:

1. has an orderly knowledge of physical phenomena in classical experimental physics [k2_w03] and quantum mechanics
2. knows the state of the art in its specialty and is aware of the latest trends in nanotechnology, quantum engineering and functional material engineering [k2_w12, k2_w13]

Skills:
student:
1. is able, on the basis of literature, to analyze the state of the art in the research field itself and to analyze the results of laboratory measurements and draw conclusions [k2_u01, k2_u02]
2. can prepare independently and efficiently presents an oral presentation in polish with well-documented and interpreted measurement results [k2_u04]

Social competences:
student can work on the task on its own and in the team, demonstrates responsibility in this work [k2_k01]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:
Effect Evaluation Form Evaluation criteria
W01, W02, W03 Evaluation of individual oral presentation 50.1%-70.0% (3)
 using a computer program 70.1%-90.0% (4)
 and evaluation of answers to questions dot. presentation from 90.1% (5)
U01, U02 Evaluation of individual oral presentation 50.1%-70.0% (3)
 using a computer program 70.1%-90.0% (4)
 and evaluation of answers to questions on presentation from 90.1% (5)
K01 Evaluation of individual oral presentation 50.1%-70.0% (3)
 using a computer program 70.1%-90.0% (4)
 and evaluation of answers to presentation questions from 90.1% (5)

Programme content

1. Rules for the preparation of master"s thesis.
2. Tips for preparing presentations in Power Point programs.
3. State of the art of world knowledge and technology in the research field.
4. Additional content depending on the subject matter of the given thesis.

Teaching methods

Seminar, consultation of ongoing projects, workshops – discussions on presented diploma projects

Bibliography

Basic
1. Selected individually by the student according to the subject matter of the work carried out.
Additional
1. Selected individually by the student according to the subject matter of the work carried out.

Breakdown of average student's workload

	Hours	ECTS
Total workload	124	6,00
Classes requiring direct contact with the teacher	34	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	0	0,00