



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma seminar

### Course

Field of study

Biomedical engineering

Area of study (specialization)

Bionics and virtual engineering

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

1/2

Profile of study

general academic

Course offered in

Polish

Requirements

elective

### Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

15

### Number of credit points

1

### Lecturers

Responsible for the course/lecturer:

prof. dr hab. inż. Michał Nowak

email: Michal.Nowak@put.poznan.pl

tel. 61-6652041

Wydział Inżynierii Mechanicznej

ul. Piotrowo 3, 60-965 Poznań

Responsible for the course/lecturer:

Responsible for the course/lecturer:

### Prerequisites

Knowledge and skills included in the scope of studies in the field of biomedical engineering

### Course objective

Preparing the student for independent and responsible functioning in the CAD / CAM environment. Acquiring the ability to scientifically develop a topic, prepare a report, execute and document the project. To acquaint the student with the basic principles of publishing scientific research.

### Course-related learning outcomes

#### Knowledge



Corresponding to the course completed.

### Skills

1. The student is able to obtain information from literature, databases and other properly selected sources, also in English or another foreign language recognized as the language of international communication in the field of study; is able to integrate the obtained information, make its interpretation and critical evaluation, as well as draw conclusions and formulate and exhaustively justify opinions. K2\_U01
2. The student is able to work individually and in a team, use information and communication techniques appropriate to the implementation of tasks, communicate using various techniques in the team and in the environment, also in English or another foreign language recognized as the language of international communication in the field of mechanics and machine construction. K2\_U02
3. The student is able to prepare a scientific study in Polish and a short scientific report in a foreign language, considered basic for the fields of science and scientific disciplines relevant to mechanics and machine construction, presenting the results of their own scientific research; is able to prepare and present in Polish and foreign languages an oral presentation on specific issues in the field of mechanics and machine construction. K2\_U03
4. The student is able to define the directions of further learning and implement the process of self-education and direct others in this area K2\_U04

### Social competences

1. The student is able to set priorities for the implementation of the tasks set by himself or others. K\_K04

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Oral and written tests. Individual assessment of completed projects.

Test for:

- level of knowledge,
- application of knowledge,
- potential problem-solving skills.

### Programme content

The diploma thesis is a summary of the study and an indication of the student's competences to solve technical problems using the information provided to students during course classes.

The topics of the work are as far as possible related to the topic of research work of the Institute's employees.



The topic of work may also result from the needs of the industry where the graduate intends to find employment.

The work should meet the requirements of scientific studies, i.e. it should contain elements of a new approach to the topic, refer to the current (literature) state of the art in the field it concerns, present assumptions and theoretical foundations, methodically developed results and correct inference.

The presentation of the topic and method of solution must be clear and logical, and the language of the work precise.

### Teaching methods

### Bibliography

Basic

1. Bibliography on the subject of work.
2. Wojciechowska R., Przewodnik metodyczny pisania pracy dyplomowej, Wydawca: Difin, ISBN: 978-83-7641-224-5, 2010
3. Sydor M., Wskazówki dla piszących prace dyplomowe, Wydawnictwo Uniwersytetu Przyrodniczego W Poznaniu, 2014.

Additional

2. <https://www.jou.ufl.edu/grad/forms/Guidelines-for-writing-thesis-or-dissertation.pdf>

### Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,0
Classes requiring direct contact with the teacher	15	0,5
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>	10	0,5

---

1

<sup>?</sup> delete or add other activities as appropriate