



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma seminar

### Course

Field of study

Biomedical engineering

Area of study (specialization)

Engineering of implants and prosthesis

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:

dr hab. inż. Jacek Buśkiewicz

Responsible for the course/lecturer:

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Institute of Applied Mechanics

Faculty of Mechanical Engineering

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### Prerequisites

Students should have basic knowledge covering key issues in the field of the first cycle biomedical engineering.

### Course objective

Familiarizing students with the process of editing a diploma thesis, ongoing supervision over the progress of the theses. Exchange of opinions and assessments on projects carried out as part of the diploma dissertation and on issues related to the course of studies applicable during the diploma examination. Developing the ability to present the results of one's own work.



### Course-related learning outcomes

#### Knowledge

Students have extended knowledge from the scope of biomedical engineering.

Students know and use the basic tools for carrying out scientific researches in the field of biomedical engineering.

#### Skills

Students are able to obtain and utilise information from literature to solve problems formulated in master's theses.

Students are able to prepare and present a concise oral presentation in Polish on the results of one's studies.

Students are able to prepare and present an oral presentation in Polish on specific issues of biomedical engineering.

Students can properly use research tools.

Students are able to plan and carry out experiments, computer simulations, interpret the obtained results and draw conclusions.

#### Social competences

Students is able to widen the knowledge by scientific literature research.

Students think and work creatively.

Students can set priorities aimed at realising scientific problems.

Students understand the importance of non technical aspects of engineering activity, the need for lifelong learning; they can inspire and organize the learning process of other people.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The knowledge acquired during exercises is verified on the basis of the presentation of issues related to the topic of the diploma thesis in the field of: literature review, assumptions, goals, methods of solving the given problem, and on the basis of the presentation of issues related to the course of study in the diploma examination.

### Programme content

Discussion of issues related to the diploma theses in relation to the methodology and research results.

Discussion of issues related to the scientific papers.

Familiarizing students with the requirements for engineering theses and editorial requirements.



Familiarizing students with copyright and anti-plagiarism program.

Familiarizing students with the course of the thesis preparation process and the course and requirements for the diploma examination.

Determining and discussing the topics of theses.

Presentation of the selected topics of biomedical engineering.

### Teaching methods

Multimedia presentation

### Bibliography

Basic

Majchrzak J., Mendel T., *Metodyka pisania prac magisterskich i dyplomowych*. Wyd. Akademii Ekonomicznej, Poznań, 1995.

Sydor M., *Wskazówki dla piszących prace dyplomowe*, Wydawnictwo Uniwersytetu Przyrodniczego W Poznaniu, 2014.

Additional

Żółtowski B., Jedliński R., Jazon A., *Metodyka w okruchach. Seminarium dyplomowe. Metodyka pisania pracy dyplomowej*. Bydgoszcz, 1994.

Żółtowski B., *Seminarium dyplomowe - zasady pisania prac dyplomowych*, ATR, Bydgoszcz 1997.

M. Sobczyk, *Statystyka*, Warszawa PWN 2015.

### 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

<sup>1</sup> delete or add other activities as appropriate