



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Pre-graduate seminar [S1IBio1>SPD]

### Course

Field of study

Biomedical Engineering

Year/Semester

3/6

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

polish

Form of study

full-time

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

15

### Number of credit points

1,00

### Coordinators

### Lecturers

### Prerequisites

Knowledge transferred in the current educational process in the field of biomedical engineering

### Course objective

Preparation for an engineering thesis and synthesis of the acquired knowledge in biomedical engineering.

### Course-related learning outcomes

Knowledge:

1. Expanded knowledge of biomedical engineering based on various sources of scientific information.
2. The student knows the basic tools for conducting scientific research in the field of biomedical engineering.

Skills:

1. The student is able to review literature sources helpful to define particular tasks of an engineering diploma thesis.
2. The student can prepare and present a concise study the selected research topic.

Social competences:

He is able to extend his knowledge by independently following scientific reports. Can exchange the

acquired information in the research team. Can set priorities for the implementation of a task set by himself or others.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Credit for a numerical grade on the basis of the presentation of the paper during the seminar, discussion of the issues presented and answers to the questions asked. Obtaining at least 50% of the points is required.

### Programme content

Before the start of the 6th semester, students choose one of the two areas of diploma: Computer methods of design and analysis in biomedical engineering or Design and production in biomedical engineering.

Methodological basics of writing diploma theses.

Presentation of fragments of engineering theses and issues of the diploma examination as well as discussions related to their subject. Discussion on obtaining information from literature, databases and other sources in the field of biomedical engineering, the need to respect the intellectual property of individual and team work.

### Teaching methods

Multimedia presentation, discussion.

### Bibliography

Basic:

1. R. Wojciechowska: Przewodnik metodyczny pisania pracy dyplomowej, Wyd. DIFIN, Warszawa 2010
2. E. Opoka: Uwagi o pisaniu i redagowaniu prac dyplomowych na studiach technicznych, Wyd. Politechniki Śląskiej, Gliwice 2001
3. Literature related to the subject of a given engineering thesis

Additional:

1. Dobre obyczaje w nauce. Zbiór zasad i wytycznych (wyd. 3), Wyd. PAN Warszawa, 2001.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,00
Classes requiring direct contact with the teacher	15	0,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	10	0,50