

Title Basics of Prosthetics Design	Code 10102213610102102437
Field Mechatronics	Year / Semester 3 / 6
Specialty -	Course core
Hours Lectures: 1 Classes: - Laboratory: 1 Projects / seminars: -	Number of credits 2
	Language polish

Lecturer:

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Status of the course in the study program:

- Compulsory course.

Assumptions and objectives of the course:

- Knowledge of the design and structure of endoprosthetics, orthoses and stabilizers.

Contents of the course (course description):

- Structure and modeling of human motion system. Mechanical properties of the tissues of human organs responsible for motion. Biotribology. Biomaterials in prosthetics. Design of endoprosthetics. Endoprosthetics of hip joint. Endoprosthetics of knee joint. Modeling of the loads in the im-plant-bone system. Design of orthoses. External stabilizers.

Introductory courses and the required pre-knowledge:

- Basic knowledge of strength of materials, basics of machine design and biomedical engineering.

Courses form and teaching methods:

- Lecture, computer laboratory.

Form and terms of complete the course - requirements and assessment methods:

- Project.

Basic Bibliography:

Additional Bibliography: