

Title Modeling of structural materials	Code 10102122310102102355
Field Mechanical Engineering	Year / Semester 2 / 3
Specialty Mechanics of materials and structures	Course core
Hours Lectures: 1 Classes: - Laboratory: - Projects / seminars: -	Number of credits 2
	Language polish

Lecturer:

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Faculty:

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Status of the course in the study program:

- Core course at the Mechanical Engineering Faculty to second degree studies

Assumptions and objectives of the course:

- The student should obtain knowledge from numerical methods with applications for structure analysis

Contents of the course (course description):

- The continuum model. Balances: mass, momentum, and energy. Elastic materials. Hook's law. Models of non-linear elasticity. Viscous material. Viscoelasticity. Typical rheological models. Creeping and relaxation. Elastic-plastic materials. Typical models of plastic materials.

Introductory courses and the required pre-knowledge:

- Knowledge of applied mechanics and mechanics of materials

Courses form and teaching methods:

- Lecture

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

- Written test from lectures

Basic Bibliography:

Additional Bibliography: