

Title <b>Material engineering and corrosion</b>	Code <b>1010704231010720457</b>
Field <b>Chemical Technology</b>	Year / Semester <b>2 / 3</b>
Specialty -	Course <b>core</b>
Hours Lectures: <b>2</b> Classes: -    Laboratory: -    Projects / seminars: <b>20</b>	Number of credits <b>8</b>
	Language <b>polish</b>

**Lecturer:**

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**Status of the course in the study program:**

fundamental

**Assumptions and objectives of the course:**

The student should to get a knowledge of the language of the materials science (properties of materials, ageing effects) and corrosion.

**Contents of the course (course description):**

The materials used in the constructions of measuring positions and industrial installations. Biomaterials. Fundamentals of strength of materials. Machines elements and their fastenings. Design praxis. Corrosion (chemical, reinforcement, microbiological etc.) and corrosion protection.

**Introductory courses and the required pre-knowledge:**

Know-how of material selection and strength calculations of chemical equipment elements. Using of the AutoCAD and GRAF2000 softwares.

**Courses form and teaching methods:**

lectures + projects

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

Permanent control during the courses, current check in the middle of design praxis, preparation of the 2 individual projects with assembly drawings (plane truss and pressure tank, taking into account the load calculations and selection of typical drives on the basis of mandatory standards) and their defense, final examination after semester 3 (written-oral).

**Basic Bibliography:**

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**Additional Bibliography:**

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