

Title (Konstrukcje betonowe)	Code 1010101141010110041
Field Civil Engineering First-cycle Studies	Year / Semester 2 / 4
Specialty -	Course core
Hours Lectures: 2 Classes: - Laboratory: - Projects / seminars: 2	Number of credits 6
	Language polish

Lecturer:

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Faculty:

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Status of the course in the study program:

-The obligatory course for students of civil engineering structures speciality.

Assumptions and objectives of the course:

-The aim of the subject is to teach students according to valid standards how to dimension concrete and RC elements working in different way.

Contents of the course (course description):

-Lectures:

Introduction - history of concrete and reinforced concrete, examples of carried out structures. Basic properties of concrete and steel. Calculation methods of reinforced concrete elements. Ultimate limit state - rules of calculation: bending, shear, compression, tension elements and punching. Serviceability limit state - rules of calculation: width of vertical and diagonal cracks, deflections of RC elements. Basic requirements of concrete elements reinforcement.

-Project:

Design of rib-slab floor in which the following elements are dimensioned:

- one way slab floor
- bended T beam
- compression column
- footing.

Introductory courses and the required pre-knowledge:

-Basic knowledge of general mechanics and strength of materials.

Courses form and teaching methods:

-Lectures, projects

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

-Examination:

Written and oral form of examination.

-Project:

Estimation of design on the basis of calculations and structural drawings according to the knowledge of the design (test)- 14 week of semester.

Basic Bibliography:

Additional Bibliography: