Title **Computer applications in mechanics**	Code **1010101161010110466**
Field **Civil Engineering First-cycle Studies**	Year / Semester **3 / 6**
Specialty **Structural Engineering**	Course **core**
Hours Lectures: **-** Classes: **-** Laboratory: **2** Projects / seminars: **-**	Number of credits **2**
	Language **polish**

Lecturer:

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Status of the course in the study program:

-Computer applications in mechanics

Assumptions and objectives of the course:

-Knowledge on the environment of computer codes and on the responsible computations with using different models; responsibility of an engineer for the quality of used numerical models; The goal of the topic is the dissemination of the knowledge on the practical aspects of framework modeling using ready applications.

Contents of the course (course description):

The course schedule:
Lab. 1 Projects and discussion
Lab. 2 Rm-Win software + exercise
Lab. 3 Konstruktor software + exercise
Lab. 4 Soldis software + exercise
Lab. 5 Robot software + exercise
Lab. 6 Modeling ? special cases
Lab. 7 Modeling ? special cases
Lab. 8-12 Project realization
Lab. 13 Results presentation and discussion
Lab. 14 Results presentation and discussion

Introductory courses and the required pre-knowledge:

-basics of numerical methods, structural mechanics, strength of materials and finite element methods are required

Courses form and teaching methods:

-computer laboratory with the access to computer programs; some comments if necessary

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

Students realize projects in 4-5 people groups. Obtained results are presented during the last laboratories. The final mark of the project is from 2,0 to 5,0 and can be corrected up or down. The correction can not be higher than 1,0.

Basic Bibliography:

Additional Bibliography: