

TECHNICAL MECHANICS (10)

The subject "Technical Mechanics" consists of 4 parts: statics, strength of materials, kinematics and dynamics. The Statics classes discuss the methods of reduction and conditions for equilibrium of a force system. The conditions for equilibrium are used to determine the structural response of structures. The Strength of Materials lessons are a continuation of statics involving the methods of strength measuring for the main strengths: tensile strength, compressive strength, twisting, bending and a combination of them. The Kinematics classes provide information on the basic movements of the solid body: translation, rotation, and plane. The Dynamics examines methods for the movement of a mechanical system.

Each student receives an individual assignment, which must be prepared and defended within a deadline.

A prerequisite for the successful training in the subject is knowledge of certain sections of mathematics: vector calculus, differential and integral calculus and differential equations.

Primary topics in the training include:

- Statics
- Strength of materials
- Kinematics
- Dynamics