

«Physics for Civil Engineers»

Dates:	August 14 – August 26, 2023
Duration:	2 weeks
ECTS credits:	3
Participation fee:	41,000 RUB
Target group:	Students, graduate students, persons with higher or secondary special education

Course Description

This program will allow students to learn about the application of physical laws in the construction industry in order to improve the efficiency of urban planning through in-depth study of physical laws.

The program consists of the following **modules**:

- Module 1.** Mechanics. Laws. Uses in construction. Coping, blocks, friction.
- Module 2.** Electrical phenomena. Electrification, Current, Induction.
- Module 3.** Waves, Damping, Resonance, Reverberation.
- Module 4.** Optics. Laser, Holography.
- Module 5.** Hydrostatics. Elements of hydromechanics, streamlining of buildings, movement through pipes.
- Module 6.** Thermodynamics. Calculation of room temperature conditions.
- Module 7.** Transfer phenomena. Viscosity of liquids and gases.
- Module 8.** Elementary Russian for Physics. Workshop. Russian as a foreign language in Physics.
- Module 9.** Remote sensing in Civil Engineering. Aerosols in Ecology.

As a **result of completion of the program**, the student will be able to:

1. Confidently use basic physical laws to calculate building structures and predict the behavior of complex physical systems.
2. Use modern physical equipment to investigate the condition of buildings and structures.
3. Remote Sensing in Civil Engineering and Hydraulic Structures.

Program instructors:

Gavrilin S.N. – Senior Lecturer in the Department of General and Applied Physics, DSc in Physics.

Maignan Schubert – Lecturer of the Department of General and Applied Physics, DSc in Engineering.

The price for each program includes:

- Curriculum
- Handouts
- Excursion on the campus of Moscow State University of Civil Engineering
- Excursions, included in the educational program
- Cultural program (three programs of five)

Extra costs:

- Accommodation from 700 rub per day
- Visa support - 800 rub
- Medical insurance - 800 rub

Deadline for registration: June, 25 2023

Contact Information:

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Registration

