

Aerodynamics

Moscow Institute of Physics and Technology (National Research University)

Degree or qualification is awarded: **Master's degree**

Language of study: **English**

Mode of study: **full-time**

Duration: **2 years**

Availability of free education: **yes**

Price: **435 000 RUB per year**

Programme webpage at the university website: <https://mipt.ru/english/edu/master/aerodynamics>

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Master degree programme of the Department of Aeromechanics and Flight Engineering.

This programme prepares students for professional positions in the aerospace industry, government, and business, it focuses on aeromechanics, control, propulsion and engineering problems of aircraft.

KEY ADVANTAGES:

Fundamental approach; Modern methods; Lecturers are noted scientists; Actual problems of aerodynamics as MSc Thesis; Different activities, such as wind tunnels, flight simulator, flight training.

STUDIED COURSES:

Essentials of fluid mechanics;
Aerodynamics of high-speed flows;
Dynamics of viscous gas;
Analytical methods in aeromechanics;
Modern methods of theoretical fluid mechanics;
The basics and applications of computational fluid dynamics;
Computational aerodynamics;
The numerical methods of aerodynamics for multidisciplinary optimization and design;
Typical CFD problems; Gas dynamics of combustion;
Unsteady aeromechanics;
Physical foundation of the industrial wind tunnels tests;
Aviation ecology; Aeroacoustics of aircraft;
Turbulence (optional);
Boundary-value problems of CFD (optional).

Specializations within this programme