



Silesian
University
of Technology



EXCELLENCE INITIATIVE
**RESEARCH
UNIVERSITY**

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Characteristics of the specialty

Design and Simulation Methods in Aerospace Engineering is a multidisciplinary specialization, where students gain knowledge in the field of building and designing aircraft such as airplanes, rotorcraft and unmanned aerial vehicles. This specialization covers a wide range of engineering fields: from structural design and production, through aircraft maintenance and operation, to flight dynamics and simulations. Obtaining a master's degree in this specialization provides knowledge and skills in the field of construction, design and operation of flying ships, their energy requirements and ensuring an appropriate level of reliability. Our specialization gives you the opportunity to gain knowledge about the most modern software for design, analysis and simulation.

Program of specialties, forms of education

- Advanced design methods for Aerospace structures
- Rotorcrafts
- Advanced application of FEM
- Multidisciplinary Design Optimisation
- Model Based Design
- Design and analysis of composite structures
- Possibility to implement subjects as part of PBL (Project Based Learning)





<https://www.polsl.pl/rmt/kierunki/>

Specialization at the 2nd degree of studies for the field of:
Aerospace Engineering

Why is it worth choosing our specialty?

- An innovative educational program tailored to the needs of companies from the aviation industry,
- you will gain practical skills valued by employers,
- you learn about the practical application of design and simulation to the aerospace industry,
- provides a solid basis for further self-education and participation in doctoral studies,
- you can implement your ideas and projects related to aviation engineering,
- you can propose the topic of the diploma thesis that you would like to pursue,
- opportunity to work in student aviation science clubs.

Graduate profile and employment prospects

A graduate of the specialization may apply for positions in research and development, testing and design in the aerospace industry. In addition, the basics of aerodynamics, materials science and 3D modeling allow you to develop a career in other industries, such as: automotive, machine industry and other sectors of the engineering and manufacturing industry. By taking part in group projects connecting students with different experience and nationality, the graduate will be able to manage various responsibilities in the team, incl. how to run a project and how to solve engineering problems similar to industry problems.

Contact :

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