





# field of study MATERIALS ENGINEERING

## MATERIALS ENGINEERING

master's degree studies

Nowadays the progress in civilization wouldn't be possible without modern materials. There would be no airplanes, space flights, advanced electronics, miniaturization, implants or better and better sport achievements. A variety of modern materials and their constant development make our lives more interesting, more comfortable, safer and longer. Materials engineering deals with the principles of development and improvement of materials by providing them specific functional properties and characterizing their structure and features. It is an interdisciplinary branch of science, that combines the engineering expertise with knowledge of materials structure and technology, which are irreplaceable in the selection of the most appropriate materials during the design process of each device. For that reason materials engineers are desired by all kinds of industries which provide products on the market or exploit different machines or devices.

The Materials Engineering second-degree study programme at Faculty of Mechanical Engineering and Mechatronics is addressed to Bachelors in different fields of science, who:

- are interested in modern materials, particularly polymers and polymer construction composites light but strong, and want to contribute to their development.
- would like to extend knowledge on materials structure, their functional properties, physical or chemical modification towards improved performance of final products,
- would like to learn how design and develop materials and composites applicable
  in aviation, shipbuilding, automotive, wind farms, medicine or sport equipment,
  are interested in polymer processing and designing / constructing technological equipment to improve processing in order to provide final products to automotive, transport, medical, chemical, packaging, electronics, and other industries.

This study is suitable for both foreigners and Polish students who would like to get advanced in English nomenclature in materials science.

**Master's degree specialities:**Processing of Polymer Materials
Lightweight structures

#### WHAT WILL YOU LEARN?

The study programme provides education in the fields of advanced research methods, design, manufacturing and utilization of engineering materials – polymers, metals, composites, and technological processes. It is based on advanced knowledge of physics, chemistry, mathematics and materials science as well as on engineering knowledge in modelling, designing and processing of materials.

### WHAT MAKES THIS FACULTY DIFFERENT?

The Materials Engineering as the first study programme in English at the West Pomeranian University of Technology, received the prestigious European quality certificate EUR-ACE ® Label, granted by Accreditation Commission of Universities of Technology (KAUT). The EUR-ACE ® Certificate confirms the high level of engineering degree education being in accordance with European standards and principles. In consequence our graduates receive the Certificate which confirms that they are well prepared to meet the industrial requirements and challenges. It also opens more perspectives for employment in European industry.

The high quality of education at Materials Engineering was also appreciated in European Ranking of Engineering Programms (EngiRank in short) which classified our study programme at 2nd position within 13 countries of the so-called New Europe (ie. countries that joined the European Union on or after 2004) and at 1st position (ex aequo with Warsaw University of Technology) within 55 Polish technical universities. The international Council assessed both the scientific activity of the university staff in the materials science as well as high standards of education delivered to our students within 2014 – 2018. These are the best reasons to become a Student of Material Engineering at Faculty of Mechanical Engineering and Mechatronics.

### **JOB PERSPECTIVES:**

The Materials Engineering 2nd degree study programme is for young people looking for a fascinating job in many different sectors of industry: automotive, aircraft, transporting, medical, chemical, packaging, machines, steel constructions, etc.







#### **Apprenticeships, internships, benefits:**

During the three – semesters study programme Students have to do an internship in a manufacturing company to get some experience and recognize the specific organisation of production. Student can select the company and apply for a training or ask the faculty coordinator for the partner companies offering the internship positions. In every case, however, the student will be invited for an interview

Students of Faculty of Mechanical Engineering and Mechatronics can take a part in the Erasmus+ programme that helps people to develop and share knowledge and experience at institutions and organizations in different countries. It means that during your study you can apply for continuing your study programme or for an internship in other European country. The international training opportunities are also provided by IAESTE Poland organization that is also available for our students

wimim.zut.edu.pl wimim@zut.edu.pl

tel.: 91 449 41 92 tel.: 91 449 42 09

facebook.com/zutWIMiM

tel.: 91 449 45 89

YT/WIMiM ZUT Szczecin

al. Piastów 19. 70-310 Szczecin

Instagram/wimim\_zut\_w\_szczecinie

LinkedIn/Wydział Inżynierii Mechanicznej i Mechatroniki ZUT w Szczecinie