

INSPIRING GLOBAL CHANGE SINCE 1222

SCHOOL OF ENGINEERING

MATERIALS ENGINEERING

Materials Engineering is an interdisciplinary and revolutionary sector that has transformed every aspect of modern life, introducing new materials fundamental to the development of new technologies and numerous industries. The training provides students with specific professional knowledge aimed at finding the best solutions for the processes of production, transformation and use of materials. The programme offers two curricula, focusing respectively on Advanced Materials Technologies and Functional Materials (the latter offering a study track in Nano-Bio Materials and one in Materials for Energy).



UNIVERSITÀ
DI PADOVA

MATERIALS ENGINEERING

LEVEL Master

SCHOOL Engineering

DEPARTMENT Industrial
Engineering

DURATION 2 years (120 ECTS)

START DATE October

LOCATION Padua, Italy

PROGRAMME COORDINATOR
Alessandro Martucci

WEB

www.unipd.it/en/materials-engineering

APPLY.UNIPD.IT



TOP 150 2025
Civil and Structural Engineering



ENTRY REQUIREMENTS

- Bachelor's degree (or equivalent) in Materials Engineering, Chemical Engineering, Mechanical Engineering, Metallurgical Engineering, Physics, Polymer Engineering
- English language: B2 level (CEFR) or equivalent

PROGRAMME STRUCTURE

Common course units: Solid State Physics; Science and Technology of Ceramics; Technology of Metals; Materials Structural Integrity; Composite Materials; Materials Selection and Design.

Functional Materials curriculum: Polymer Processing and Recycling; Study track Nano-Bio Materials: Nanostructured Materials; Fundamentals of Nanoscience; Inorganic Biomaterials; Biopolymers Engineering. Study track Materials for Energy: Photovoltaic Science and Technology; Sustainable Energy: Materials and Technologies; Manufacturing Technology; Renewable Energy Technologies.

Advanced Materials Technologies curriculum: Electrical and Electromagnetic Micro-Nanodevices; Glass Science and Technology; Ironmaking and Steelmaking; Design with Polymers; Manufacturing Technology.

Optional course units: Computational Materials Science; Electromagnetic Processing of Materials; Introduction to the Finite Element Method; Nanofabrication; Electrochemical Energy Storage Technologies and others.

Other activities: Soft skills courses, national and international internships, industry stages.

TUITION FEES AND SCHOLARSHIPS

Annual fees: up to € 2,900 (3 instalments)

Scholarships and fee-waivers for international students available:
www.unipd.it/en/funding-and-fees

CAREER OPPORTUNITIES

Graduates can work in a variety of industries, from companies producing or using materials to research institutes or laboratories in the field of new materials, as highly qualified engineers capable of designing and developing complex innovative products or processes and addressing design issues with traditional and innovative materials.