



# MEDTEC SCHOOL

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**HU** HUMANITAS  
UNIVERSITY



POLITECNICO  
MILANO 1863



# MEDTEC School Medicine, Science and Engineering

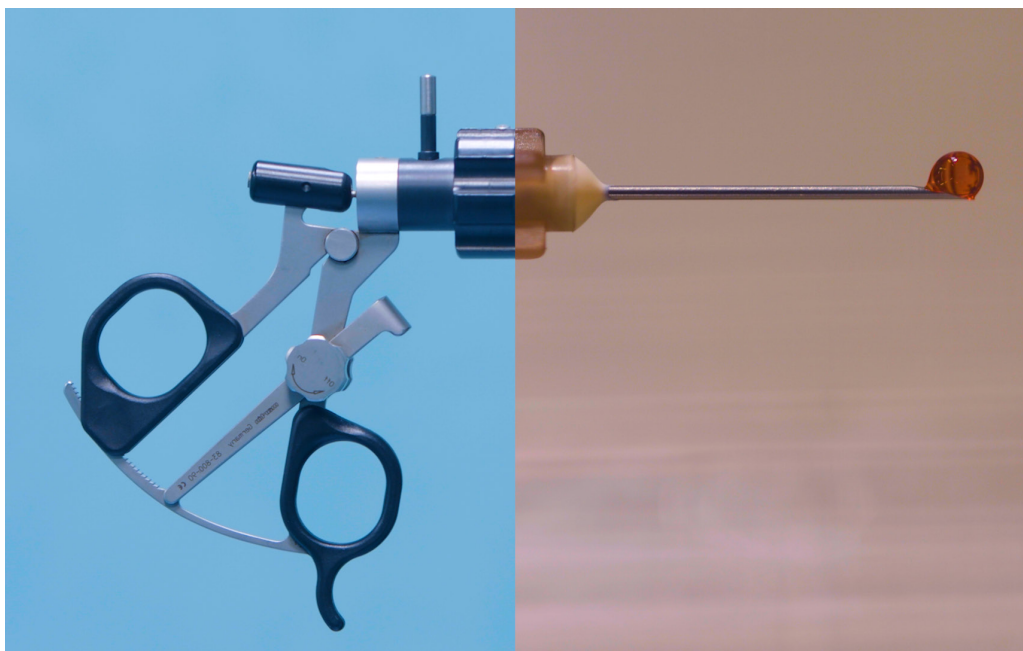
**M**EDTEC School is the international **degree programme in Medicine designed and developed by Humanitas University and the Politecnico di Milano**. The degree aims to integrate and strengthen the skills of the professional figure of the medical doctor with the skills relevant to Biomedical Engineering. On completion of the study programme, **medical graduates** can apply to the **Politecnico di Milano** for a **Bachelor's degree in Biomedical Engineering**.

**On graduating you can enter into Medical Specialty Schools, Medical Research or join industry directly**, i.e. biomedical devices and technologies or the pharmaceutical sector.

MEDTEC School trains **a new generation of professionals** to be up to speed with the new requirements and **able to manage innovative technologies and our advancing sciences**:

- Robotics
- Data science
- Artificial Intelligence
- Biostatistics
- Omics
- New materials
- Simulators and VR
- Nano-technologies

**Innovation in medicine at the service of the patient.**



## Why choose MEDTEC School

This degree programme will enable you to **treat patients through the management of technological developments in Medicine and its related sectors**, including disease prevention and treatment, patient rehabilitation and the development of innovative diagnostic and therapeutic solutions. The **integrated six-year training course** will allow you to obtain additional ECTS and be awarded a **Bachelor's Degree in Biomedical Engineering from the Politecnico di Milano, in addition to a degree in Medicine and Surgery**.

The six-year degree programme in Medicine and Surgery, held in English, is organised by Humanitas University in partnership with the Politecnico di Milano. The programme strongly focusses on enhancing the medical skills of a doctor through the integration and acquisition of the

basic competences and approaches relevant to Biomedical Engineering.

On successfully completing the degree programme you will:

- have gained in-depth **knowledge of advanced medical technologies** and be able to design personalised therapies through the use of complex technological systems for clinical evaluation, diagnosis and treatment
- be able to **optimise therapeutic outcomes** based on the potential of data analytics and machine learning techniques, the use of new materials and advanced therapeutic devices such as surgical robots, endo-prostheses, bio-printers and 3D printing
- have opportunities to **work in numerous medical fields**, e.g. biomedical device design, bio-medical technologies or in pharmaceutical industries.



## Research and clinical practice at the service of the patient

Studying at Humanitas University means you will have **day-to-day clinical contact with both a leading hospital and group of doctors, researchers, nurses and other healthcare professionals** involved in groundbreaking research. You will also meet up with students from over 20 countries worldwide; 40% of our medical students are from abroad. The Student Office will assist you even before your arrival with the administrative paperwork to be completed in your home country.

When choosing a university, you need to carefully consider the role of the hospital where you will carry out your clinical training.

Humanitas is a highly specialised tertiary care hospital and one of the most technologically advanced

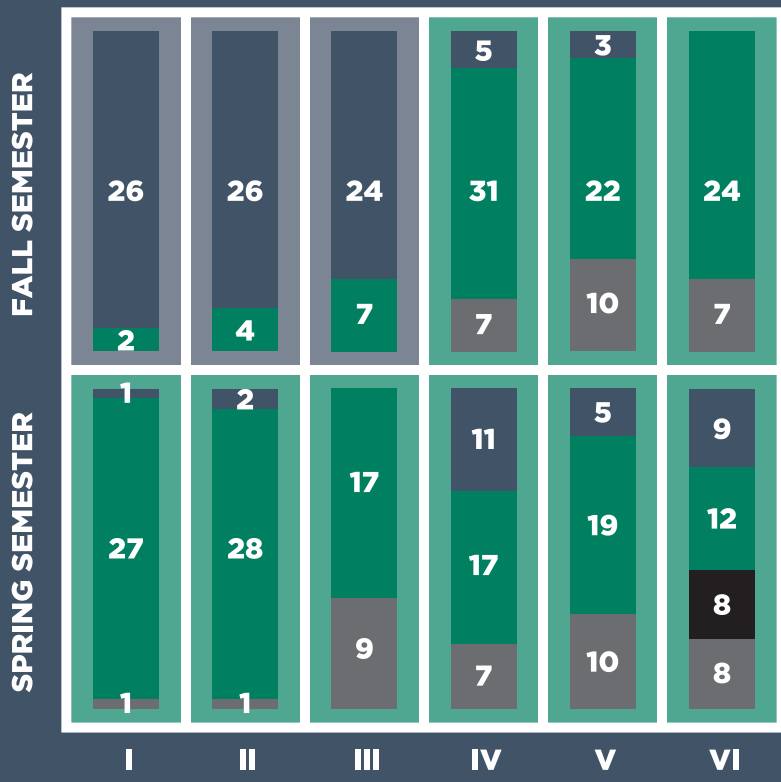
in Europe, with specialist units treating oncological, cardiovascular, neurological, orthopaedic, autoimmune and inflammatory diseases. Humanitas also has a top Eye Centre, an outstanding Fertility Centre and a highly specialised Accident and Emergency department. It is a leading research centre as well as the teaching hospital for Humanitas University. Starting from your 3rd year you will start your clinical training at the various Humanitas hospitals with the opportunity to go abroad for short periods, thanks to specific travel grants. Our university courses are founded on the faculty's outstanding teaching and international experience in clinical practice and research. The courses foresee robust interaction between the students and healthcare professionals as well as numerous activities where theoretical knowledge is integrated with practical application. Students also have the opportunity to learn and practise in the state-of-the-art Simulation Centre and Anatomy Lab.

# Integrated teaching

Humanitas University and Politecnico di Milano educational approach promotes interactive methodologies, which include **research-based learning, problem-based learning, problem solving, case methods and skill portfolios** to guarantee a solid integration between theoretical concepts acquired during teaching activities and practical training sessions and at the same time promote critical thinking. Lessons encourages students interaction, especially in team, thanks to data collection and management and subsequent discussion with the teacher, ie with the flipped classroom.

The programme will include **both single-subject courses and integrated courses where academic teaching staff from Humanitas University and Politecnico di Milano will be co-present** in the classroom to ensure the full integration of engineering skills in the clinical training. The same approach of co-tutoring will be further adopted during a number of medical professionalizing activities.

A clinical experience in an outstanding teaching hospital to take on the challenges of Personalized Medicine Humanitas is the first Italian general hospital to be quality-certified as an Academic Hospital by Joint Commission International. Harvard University considers it one of the 4 most innovative hospitals worldwide and is a case study thanks to its organisational model, which blends high-quality clinical practice, economic sustainability, development and social responsibility. The Research Centre is internationally renowned for its research on immune system diseases. The Research Centre is **part of a network of excellence** that includes New York University, the Université Catholique de Louvain in Belgium, the Spanish National Centre for Biotechnology in Madrid, the Queen Mary School of Medicine in London and the Pasteur Institute in Paris.



**Educational Owner**  
 PoliMi      Professional Activity  
 Hunimed      Thesis

**HOW TO APPLY**

To apply to the degree programme in Medicine and Surgery you must sit an admissions test at one of our test centres around the world as indicated on the website. The admissions test must be taken in the same year of enrolment. The online procedure to sign up for the test is quick and easy.

**ADMISSIONS REQUIREMENTS**

- 12 years of education
- A high school/ secondary school diploma:
  - for students from the UK, at least 3 A-levels in scientific subjects
  - for students from the USA, at least 3 APs (Advanced Placements) in scientific subjects OR
  - having passed all exams in the first two years of college, or having passed all exams of the first year of college as well as 4 APs
  - For IB students: diploma obtained after 12 years of education

## Living and studying on a new university campus

The Campus, built in 2017, brings everything together in one place – lecture halls and rooms, the Simulation Centre, the Hospital, the Research Centre and the Student House. Humanitas University lets you make the most of your university experience.

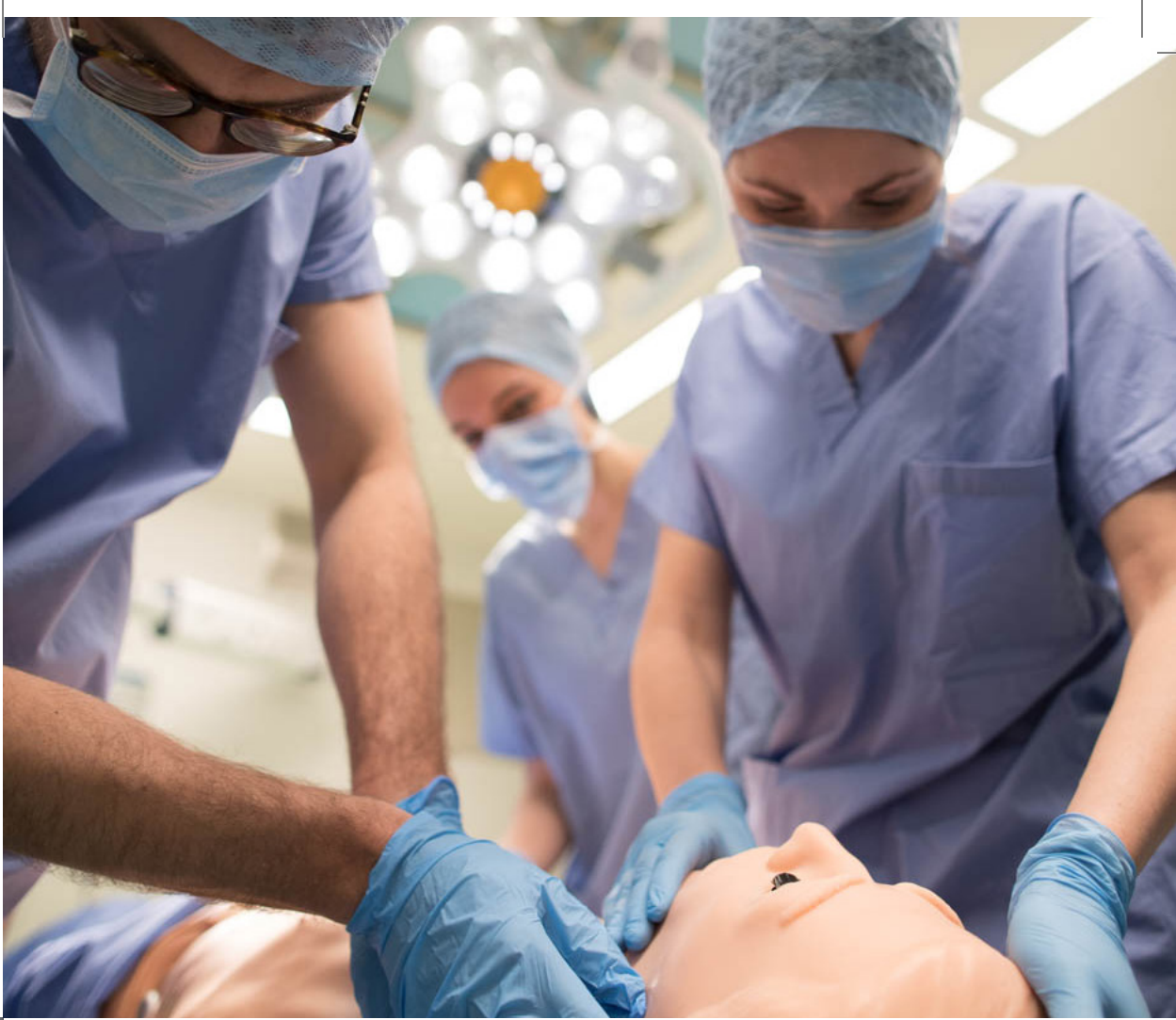
**Humanitas University is the only Life Sciences University in Italy that offers student halls of residence on its Campus.** The halls of residence are located in a park-like area just a few steps away from the University, the Hospital and the Research Centre. They include single and double rooms, laboratories, study areas, a gym, recreation halls, a library, a terrace, a garden, a café and a laundry room. In the many communal areas you can foster new relationships, create new networks and share the many emotions and experiences of student life.

Additional services include study support activities, language courses, recreational activities and social events.

Join our international student community. Come and live in a comfortable, safe environment surrounded by everything you need!







## Simulation Center

The Mario Luzzatto Simulation Centre is a 2000 square metres state-of-the-art Simulation Lab which complements the academic teaching and learning activities to train healthcare professionals.

**The first in Italy to integrate a hospital, a university campus, a simulation centre and a wet lab to provide an outstanding experience.**

In the Simulation Centre students are given the opportunity to integrate theoretical knowledge with practical skills, thanks to its emergency room, operating theatres, ambulatories, clinical and surgical skill rooms and multimedia booths.



## Milan: a door to the world

**H**umanitas University attracts Italian and international students and professionals by offering not only a distinctive education and training on a state-of-the-art campus but also **an extraordinary life experience** thanks to a city that is warm and welcoming.

Milan has opened its doors to the world. It is a city that combines science and culture, creativity and research, tradition and innovation entertainment and services.

Expo 2015 confirmed Milan's rise in terms of its ability to attract talent and human capital and in terms of the professional opportunities it offers and its quality of life. **Milan continues to grow as a university city** and has developed numerous services for its ever-expanding student community.

In 2018, Milan climbed the QS Best Student Cities ranking, placing among the top 40 worldwide and the best in Italy.



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