The Master Degree in Medical Biotechnology includes two curricula: Medical and pharmaceutical biotechnology (MFB) and nanobiotechnology (NBT). For both curricula during the first year an advanced knowledge in molecular pathology, biochemistry, genomics, oncology, molecular and cellular technologies, industrialization of biotechnology products and biostatistics will be given. The second year the will be focused either on gene therapy, drug development, pharmacogenomics, molecular oncology and immunology (MFB) or nanobiotechnology, molecular biophysics and biomaterials/tissue engineering and biostructural techniques (NBT).

The following courses are held in English

1st YEAR
• Developmental neurogenetics, 6 ECTS, I semester
• Cellular and Molecular Neurobiology, 12 ECTS, I semester
• Molecular Neurophysiology, 8 ECTS, I semester
• Neuroanatomy and Neuropharmacology, 7 ECTS, I - II semester
• Integrative Neurophysiology, 7 ECTS, II semester
• Neuropathology, 6 ECTS, III semester

2nd YEAR
• Neurofunctional Techniques, 10 ECTS, I semester
• Cognitive Neuroscience, 7 ECTS, I semester

The entire course is held in English

2nd YEAR

• Gene therapy and regenerative medicine, 6 ECTS, I semester
• Drug development and pharmacogenomics, 6 ECTS, I semester
• Immunotherapy, 6 ECTS, I semester
• Molecular biophysics, 6 ECTS, I semester
• Biomaterials and tissue engineering, 6 ECTS, I semester
• Nanobiotechnology, 6 ECTS, I semester
• Advanced techniques in microscopy, 6 ECTS, I semester
• Biostructural techniques with synchrotron light, 6 ECTS, I semester

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The Master Degree in Global Change Ecology is aimed at strengthening the knowledge of biology and natural sciences, with special focus to the impact of global environmental change on living organisms. Special attention is given to morpho-functional and ecophysiological adaptation of living organisms to contrasting habitats. Theoretical and practical activities, both in the laboratory and in the field, will be aimed at providing examples of experimental and monitoring techniques, data elaboration and interpretation, experimental design and implementation.

The following courses are held in English

1st YEAR
- Global and regional climate change, 6 ECTS, I semester
- Design and analysis of environmental monitoring and experiments, 6 ECTS, I semester
- Genetics and molecular biology for environmental analysis, 12 ECTS, I semester
- Marine ecosystems and global change, 6 ECTS, II semester
- Plant stress ecophysiology, 6 ECTS, II semester
- Scientific writing, 3 ECTS, I semester
- Ecological modelling, 3 ECTS, II semester

2nd YEAR
- Environmental Toxicology, 6 ECTS, I semester
- Biodiversity informatics, 6 ECTS, I semester

The Master Degree in Functional Genomics is an international course characterized by subjects in molecular biology, genomics, transcriptomics and proteomics applied to biomolecular medicine, diagnostic and pharmaceutics. A peculiarity of the course is an international program that allows to obtain the Double Degree from the Universities of Paris 7 and Paris 5. Trieste hosts numerous scientific institutions which closely cooperate with the University.

The following courses are held in English

2nd YEAR
- Gene expression, 6 ECTS, I semester
- Transcriptomics, 6 ECTS, I semester
- Molecular immunology, 6 ECTS, I semester
- Model organisms, 6 ECTS, I semester

Trieste is a fascinating city, a hub of relations and a crossroads where various branches of knowledge meet. Located between the sea and the extraordinary natural beauty of the Carso plateau, Trieste is one of the cities with the best quality of life in Italy. Trieste hosts a high number of world-known research institutions, academic institutions, international organisations, technological transfer and high-level research infrastructures, which have made Trieste known as “City of Science”. This unique scenario offers the most favourable conditions for developing technological innovations and business competitiveness as well as a large choice of internship for students. The University is part of such lively system providing access to state-of-the-art equipment and facilities and the possibility to interact with leading researchers in many fields. The city of Trieste itself has a distinctive international feel to it, thanks to its history and its location as the gateway between Western and Eastern Europe.