Department of Physics, Informatics and Mathematics

Master's Degree Programme in Physics
Master’s Degree Programme in Physics

Teaching Programme

1° year
9 teaching modules (6 ECTS, each) to be chosen among:

2° year
Research project and dissertation (36 ECTS) and 5 modules (6 ECTS, each) to be chosen among:
- Gauge Theories, Relativity, Laboratory of Computational Quantum Mechanics, Elementary Particles, Relativity, Magnetism and Spintronics, Advanced Photonics, Synchrotron Radiation: basics and applications, Laboratory of Nanofabrication, Good Practices and Research Integrity in Sciences, Science-based innovation, High-Performance-Computing for sciences, Nanomechanics

Course content

Students may choose between three curriculum, “Experimental Nano- and Bio-Physics”, “Theoretical and Computational Physics”, and “Applied Physics”. Students are guided to set a personalized study plan to meet their interests, and acquire an up-to-date training in several areas of basic and applied physics, such as theoretical physics of fundamental interaction, theoretical and computational physics of condensed and soft matter, nanoscience and nanotechnology, biological physics, and applied physics. The last semester is devoted to an original research project, conducted within one of the Department’s research groups or at partner research centers, possibly in collaboration with industries of the district.

Career options

The range of job opportunities for graduates in physics is really wide. Physicists are employed in all branches of high-tech industries, mechanics, electronics, T&L, biomedicine, in areas such as meteorology and environmental monitoring, patient system, medical physics, financial market, scientific publishing, and higher education. The M.Sc in Physics allows access to a Ph.D. program, the starting point for students willing to pursue a career in scientific and academic research. Our Department organizes a world connected Ph.D. School in Physics and Nanoscience. (www.nano-phdschool.unimore.it)

How to apply

- Register on the www.esse3.unimore.it site under the Registration (“Registrare”) heading and insert the data requested;
- after having obtained the access credentials, “login” and then click on “Application for evaluation” from the left-hand menu;
- subsequently, to complete the procedure connect to the link as specified in esse3 and in the guide to the application for admission;
- complete the application for evaluation, inserting the information requested.

Fees and scholarships

min. €600 – max. €2,200. You can apply for the following benefits: 1. A scholarship with total exemption from tuition fees. 2. A reduction of tuition (for those not eligible for total exemption). 3. A financial aid for accommodation and meals. Rules and requirements for submitting the application are contained in the “Notice of Benefits for Entitlement to Study” (Bando Benefici per il Diritto allo Studio) published by ER.GO: www.er-go.it. Incoming students willing to apply for benefits are recommended to contact ER.GO at an early stage of their application to the Master, to be informed on the deadlines. You may also want to contact the International Welcome Desk for guidance on any practical issue, including applications for VISA.

The Department of Physics, Informatics and Mathematics

The Department of Physics, Informatics and Mathematics is a center of excellence for research, teaching and dissemination of scientific culture. Its main goal is to guarantee an ideal research and training setting to researchers and future professionals in scientific sectors which are crucial for the development of contemporary society. The Department’s research activity is funded by a wide number of national and international entities, both in the private and public sectors, and it is conducted in collaboration with many world renowned universities and research centers, both in Italy and abroad. Such high quality partnerships guarantee a range of international research and mobility opportunities for undergraduates and PhD students. The Department is hosted in a modern building within the Scientific Campus of the University, close and well connected to the historical city center, a UNESCO site. On campus services include a canteen, the scientific library and sporting fields. The campus is also well connected to the Bologna International Airport (BLQ) by a direct bus shuttle (about 50 min).

About UNIMORE

UNIMORE has a longstanding tradition (it was founded in 1175) and is considered one of the best universities in Italy for teaching and research. It is ranked at 2nd among public universities according to Italy’s leading financial daily. Over 23,000 students including 3,500 post-graduates, is large enough to offer all the facilities one would expect from a major university (well-stocked libraries, computer rooms, free internet connection and study support services) but small enough to retain a personal and friendly learning environment. Located in the heart of one of Europe’s wealthiest and most dynamic regions, which is world-renowned for its production of mechanical parts, engines, sports cars (e.g. Ferrari and Maserati) as well as for its agro-food sector, ceramic tiles and manufacturing industries. UNIMORE benefits from a longstanding relationship with the area’s firms and corporations, which provide private support for university research and a unique opportunity for on-the-job training before graduation.

Department of Physics, Informatics and Mathematics
Modena Campus

Teaching Programme

2 years, full time
ECTS credits: 120

Programme start: September 2019

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Contacts

Programme web page
www.international.unimore.it

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