

Why enroll?

DIDACTICS – Optimal numerical balance between students and instructors, highly qualified laboratories.

RESEARCH – Learning experience in an environment devoted to advanced research activities in collaboration with national and international research centers.

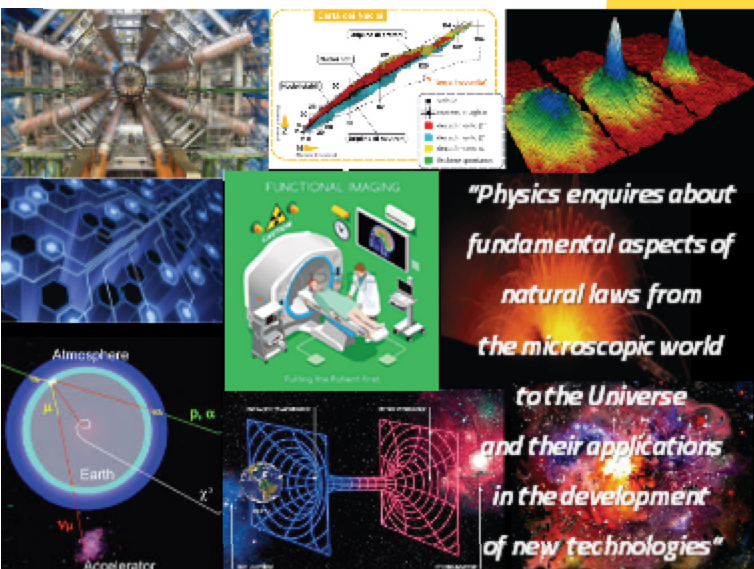
QUALIFICATION – Acquisition of a wide range of advanced and subject-specific professional skills and possibility of stages at public research centers and companies.

Scientific collaborations and exchange programs with public research entities (CNR, INAF, INFN, INGV, etc.) and other universities allow studying in a pleasant and stimulating environment with a strong international focus.

"It is no good to try to stop knowledge from going forward. Ignorance is never better than knowledge." (Enrico Fermi)

MSc Course Coordinator

Prof. Salvatore Amoruso
salvatore.amoruso@unina.it



Polytechnic and Basic Sciences School
www.scuolapsb.unina.it

Department of Physics "Ettore Pancini"
www.fisica.unina.it

MSc in Physics
www.fisica.unina.it/en_GB/corso-di-laurea-magistrale-in-fisica

Student Administration Office
Department of Physics "Ettore Pancini"
Complesso universitario di Monte S. Angelo,
Via Cintia - Tel. 081676874
segrdid.fisica@unina.it

School Student Administration Office
College of Sciences
Complesso Universitario di Monte S. Angelo
Tel. 081-676550 – 081-676544
segmmff@unina.it

neapōlis



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COLLEGIO
DEGLI STUDI DI
SCIENZE



MSc in PHYSICS

LEARNING OBJECTIVES

The MSc Degree Program in Physics aims at providing an advanced cultural education in physics, ensuring:

- a) an in-depth cultural foundation in the fields of macro and microphysics;
- b) a thorough knowledge of modern measurement instruments and data analysis techniques;
- c) a solid understanding of mathematical and computational tools;
- d) a high proficiency in the scientific method of investigation;
- e) an advanced scientific and practical training in the field of physical sciences, with substantial knowledge and skills in at least one of the following disciplinary areas: Astrophysics, Physics Education and History of Physics, Electronics, Applied Physics, Biomedical Physics, Condensed Matter Physics, Nuclear Physics, Subnuclear and Astroparticle Physics, Theoretical Physics, and Geophysics.

The MSc Degree in Physics prepares students for professional activities to be carried out with autonomy and independence. The Degree offers a high level of qualification, combining research and development tasks in industrial and service sectors with a strong scientific and technological foundation. The structure of the MSc program is closely connected to the lines of physics research developed at the University, ensuring the achievement of a broad scientific education along with specific expertise in the proposed curricular pathways.



ENTRY REQUIREMENTS

Admission to the MSc Degree Program in Physics requires foundational knowledge in classical physics, modern physics, mathematical analysis, algebra, and geometry, typically acquired through a first-level (BSc) degree in Physics. Candidates holding a first-level degree in a different scientific degree class or a qualification obtained abroad and recognized as suitable according to current regulations must have acquired adequate knowledge and skills in the scientific-disciplinary sectors characterizing the MSc Degree in Physics.

TRAINING PROGRAM

MSc in Physics curricula

- **Astrophysics**
- **Biomedical Physics**
- **Electronics**
- **Geophysics**
- **Physics Education and History of Physics**
- **Physics of Matter**
- **Nuclear Physics**
- **Subnuclear and Astroparticle Physics**
- **Theoretical Physics**

The MSc syllabus allows to reach profound knowledge and competences in:

- fundamental and applied research in public and private national and international centers and companies.
- R&D in advanced industrial fields (technology, materials, electronics, environment, economy, health, ICT, etc.).
- communication and public understanding of science. Graduates with sufficient credits in appropriate groups of fields may also be eligible, as provided by current legislation, to take admission tests for secondary education teaching training programs.

SYLLABUS

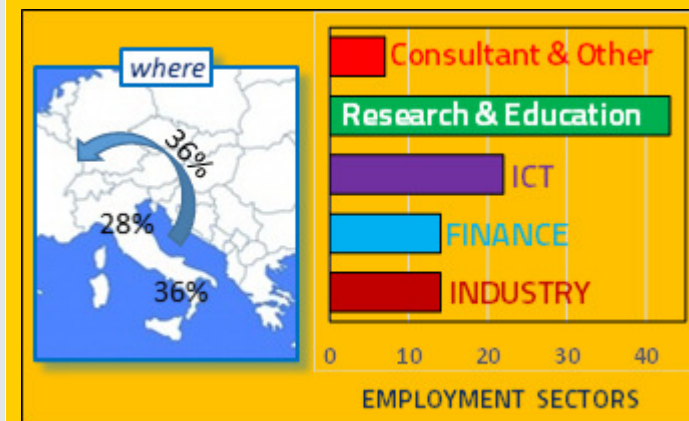
- 120 ECTS (with flexible paths in each curriculum with courses of 6 and 9 ECTS)
- 24/27 mandatory ECTS in common foundational courses
- MSc Thesis: 39 ECTS

Postgraduate opportunities

The acquired, high-level skills give access to PhD programs in Physics and in Quantum Technologies as well as to II-level masters (e.g. Medical Physics) and other science/engineering-based PhD programs of our University.

JOB AND CAREER OPPORTUNITIES

The graduates of the MSc Degree Program acquire skills that enable them to carry out professional activities requiring advanced knowledge of experimental physical methodologies, theoretical modeling of physical processes, as well as data analysis and evaluation in various industrial, scientific, and public administration contexts.



THE PLACE

Lessons, including lectures and practical activities, are all held at the University Campus of Monte S. Angelo (200 m from exit Fuorigrotta of the A56 motorway "Tangenziale") reachable by bus from Piazzale Tecchio (R6, 180, 615) close to the train stations of Cumana (MOSTRA) and Metro (CAMPI FLEGREI). The Campus is provided with various public utilities (e.g. canteen, bar, cash dispenser, photocopy shops).

