the program in a nutshell

Two-year MSc program focused on the various aspects of nuclear engineering (fission reactor physics and engineering, fusion reactor physics and engineering, laboratory of nuclear reactor kinetics, radiation protection and radiochemistry, biomedical and industrial applications of radiation, safety of nuclear installations, etc.)

The students will take courses in both Universities (one year @ PoliMi, one year @ PoliTo), and will earn a Master Degree in either:

- Nuclear Engineering at PoliMi, or
- Energy and Nuclear Engineering at PoliTo:

depending on where they choose to enrol and attend their first year.

The call is launched every year for both Italian and International students, with different deadlines.

logistics

The POLY2NUC program requires spending one year at PoliMi and one year at PoliTo. In both locations, Milano and Torino, it is possible to apply for accommodation in a student dormitory:

- In Milano:
  http://www.residenze.polimi.it

- In Torino:
  http://international.polito.it/financial_aid/edisu_piemonte_scholarships

the universities

Politecnico di Milano (PoliMi) and Politecnico di Torino (PoliTo) are the leading technical universities in Italy and have 50-years-long tradition and well-recognised quality in nuclear engineering education and research.
The Joint Master of Science Program in Nuclear Engineering (POLY2NUC) is a NEW initiative, launched in the academic year 2015-2016, and a unique opportunity:

- To take advantage of the complementary know-how present in the two Universities.

- To get access to state-of-the-art laboratories, including the research reactor TRIGA @ LENA-Pavia and several other experimental and computational labs and facilities (nuclear electronics, nuclear instrumentations and measurements, radiation protection, radiochemistry, thermal-hydraulics).

- To become part of a lively and stimulating international academic community, and to enjoy the Italian cultural environment.

study plan

Energy and Nuclear Engineering at PoliTo

1st year (@PoliTo)

- Nuclear reactor physics and transport theory
- Monte Carlo methods, safety and risk analysis
- Nuclear fusion reactor physics and engineering
- Thermal design and optimization
- Biomedical and industrial applications of radiations
- Fission nuclear plants
- Radiation protection
- Computation thermal fluid dynamics

2nd year (@PoliMi)

- Nuclear design and technology
- Experimental nuclear reactor kinetics (TRIGA reactor)
- Dynamics and control of nuclear plants
- Elective courses (radiochemistry, radiation detection and measurement, nuclear electronics,...)
- Master thesis

Nuclear Engineering at Polimi

1st year (@PoliMi)

- Fission reactor physics
- Introduction to nuclear engineering
- Physics at nuclear materials
- Dynamics and control of nuclear plants
- Elective courses (radiochemistry, radiation detection and measurement, nuclear electronics,...)

2nd year (@PoliTo)

- Nuclear reactor physics and engineering
- Introduction to computational heal transfer
- Experimental nuclear reactor kinetics (TRIGA reactor)
- Safety of nuclear plants
- Biomedical and industrial applications of radiations
- Elective courses (finite elements modelling, stochastic processes, machine design,...)
- Master thesis

how to apply and deadlines

To apply to the POLY2NUC program you need to enroll in one of the two universities first. Please, be careful about the deadlines.

First step: Enroll in the corresponding master's program

▶ Nuclear Engineering at PoliMi

Students coming from an Italian university
http://www.poliorientami.polimi.it/ammissione-magistrali/

Students with a degree from universities outside Italy
http://www.polinternational.polimi.it/how-to-apply/laurea-magistrale/

▶ Energy and Nuclear Engineering at PoliTo

Students coming from an Italian university
https://didattica.polito.it/lauree_magistrali/

Students with a degree from universities outside Italy
http://international.polito.it/admission/prospective_undergraduates_and_graduates/admission_to_master_of_science_programs

Second step: Participate in the call for the POLY2NUC program that is launched after the opening of the general Politecnico enrollment. The chosen Politecnico will be the place where the first year courses are taken and the institution granting the final degree. Enrollment is possible only starting at the beginning of the academic year (i.e. it is not possible to enroll in the spring semester).

NOTICE: since the enrollment rules depend on the single institution, it is advisable to apply to both Universities, if you want to maximize the chances of being selected.

contacts

Please write an e-mail to the contacts below in case you need additional information.

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POLITECNICO MILANO 1863

POLITECNICO DI TORINO

POLY²NUC

Joint MSc Program in Nuclear Engineering