### FURTHER TRAINING



The Master's degree in Building Systems Engineering allows access to PhD Courses, University Masters and second-level Specialisation Courses.

In particular, the following constitute specific training activities for master's degree graduates in Building Systems Engineering:

- the Master's Degree in Territorial and Environmental Planning;
- the PhD in Environmental, Territorial and Building Risk and Development;
- the PhD in Sustainable Land Management.

The first two provided by the DICATECh – Department the Polytechnic of Bari, the third one jointly provided by the DICATECh and the Department of Agro-Environmental and Land Sciences of the University of







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#### Ufficio Orientamento

Service of the Polytechnic of Bari <u>orientamento@poliba.it</u> <u>T. +39 329 8576885 (tue/thu 9.00-13.00)</u>



di Bari

Politecnico



## BUILDING SYSTEM ENGINEERING

ILA

## MASTER'S DEGREE **POLIBA**



Master's Degree in Building System Engineering



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# EDUCATIONAL OBJECTIVES

The Master's Degree in Building Systems Engineering at the Polytechnic of Bari highly skilled professionals capable of addressing the complexities of the design, operational, organisational, and managerial issues which characterise the fields of new constructions, building recovery and urban regeneration. Through interdisciplinary learning and the acquisition of an engineering methodology, graduates are able to identify problems and seek appropriate design solutions related to materials, techniques, performance, processes and economics, maintaining a focus on the principles of sustainability.



#### Location

Course lectures are held at the Bari campus.



#### Duration

Expected course completion time is **2 years**.



#### Language

All lessons, seminars, and laboratories are held in **italian**.

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#### Admission

Access is subject to verification of programme requirements.

To enrol on the Master's Degree in Building Systems Engineering, a first-level degree or other recognized equivalent degree is required.

For admission to the study programme a first-level degree in classes L23 DM 270/04, L-7 DM 270/04 or class 4 - DM 509/99 is required. Access criteria include the attainment of curricular requirements as outlined in the Educational Regulation.

The programme requirements for access to the Master's Degree in Building Systems Engineering are considered fulfilled with a first-level degree in class 4 (DM 509) or L-23 (DM 270) from the Polytechnic of Bari.



The operational fields accessible with a Master's Degree in Building Systems Engineering include:

- Design and execution of building complexes, implemented with specific skills related to work quality and feasibility, technological innovation and procedural issues;
- Design and execution of measures for the recovery of existing building heritage in relation to sanitation and enhancement of buildings and the restoration of construction elements and materials;
- Design, management and evaluation of urban and territorial regeneration projects and programmes from environmental, social, and economic sustainability perspectives, inclusion in decision-making processes, reduction of climate change risks and soil protection;
- design and execution of building organisms with specific reference to the construction process, both traditional and industrialised, and to the organisation and control of the executive phases, with the design and control of safety plans.
- planning and management of building production also in relation to sustainability and energy efficiency aspects.

#### CURRENT PROGRAMMES

The two-year course of study is structured around two programmes in the second year:

- Sustainable building;
- Urban recovery and regeneration.

#### INTERNATIONALIZATION

There is a current **Double Degree** agreement between the Polytechnic University of Bari – DICATECh and the **University of Seville** – ETSIE which allows students to obtain a double degree by following a specific study programme in Bari and Seville:

• Degree in Science and Technology of Building, obtained at the end of the first year with a thesis presentation at ETSIE, UoS;

• Master's Degree in Building Systems Engineering, obtained at the end of the second year with a thesis presentation at the Polytechnic.



The training offered on the course enables graduates to enter the workforce immediately as Senior Engineers, with the opportunity to enrol on the professional register of the Order of Engineers at provincial level.

Master's degree graduates are professionals with a solid scientific and technical preparation, able to operate in the design, production, implementation and management of building assets (specifically technological and structural features which are not separate from results), as well as in the programming and management of construction processes at various levels, in the design and management of measures on existing buildings from a sustainability perspective, in the ecological regeneration of cities and urban systems, and in appropriate environmental and landscape integration of territorial transformation.

In addition to freelance work, graduates may also perform highly responsible roles in public administrations, public and private entities, construction and maintenance companies, industries producing building materials and components, professional offices and engineering companies, property management companies and quality control management companies..

The study programme ensures the attainment of the requirements (and Master's degree qualification) necessary for admission to the State Exam, so allowing for enrolment on the professional Order of Engineers (Section A Civil-Environmental).