Politecnico di Torino

ACADEMIC REGULATIONS

Bachelor's degree programme

in

CIVIL AND ENVIRONMENTAL ENGINEERING

Department of Environment, Land and Infrastructure Engineering

Collegio di Ingegneria Civile ed Edile

Academic Year **2025/2026**

The English translation of this document is provided as a support to the student community and has no legal effects. The Italian version shall constitute the sole authentic text and will be referred to for any legal matter.

SUMMARY

Art. 1 - Specific learning objectives and career prospects

1.1 Specific Learning Objectives

The Bachelor's degree programme in Civil and Environmental Engineering aims to train professionals with a multidisciplinary background and a specific focus on knowledge and skills related to structures, infrastructures, (large-scale) works, plants, systems, and processes, all in compliance with the principles of environmental sustainability, the intelligent use of resources, and the circular economy.

1.2 Career prospects

The Bachelor's degree programme aims to train a variety of professional profiles. The career prospects and main functions and competencies associated to each profile are illustrated below.

Professional Profile	Main functions and competencies
Designer / Consultant	Functions: • Collaborates in the design of a building or infrastructure from the initial project concept through to the preparation of executive and/or construction projects. • Prepares environmental impact studies, contributes to the design of territorial defence works and infrastructures, designs waste or wastewater treatment plants, conducts risk analyses of environmental incidents, and plans and manages remediation processes and environmental recovery interventions. Competencies: • Contributes to the design of structures, plants, and works; possesses skills in geotechnical, hydraulic, and sanitary engineering. Potential employers: • Service and consultancy companies, professional studios, and public agencies responsible for territorial management.
Monitoring Systems Technician	Functions: • Develops monitoring systems for key impact measurement parameters. • Manages networks that control environmental parameters in companies handling waste, water resources, and other environmental sectors, and works as a technician in prevention and protection services. Competencies: • Proficient in surveying techniques using topographic methods, conducting geophysical surveys and investigations, applying laboratory and field measurement methods for subsoil and fluid characteristics, processing spatial data, and managing permanent measurement and control networks. Potential employers: • Companies, agencies, and public bodies.

Qualified Technician in Execution and Management of Works	Functions: • Collaborates in the construction and maintenance of a building or infrastructure throughout its entire life cycle, from construction to decommissioning and reuse. Competencies: • Prepares technical reports, tender documents, and project specifications; conducts tests; manages both routine and extraordinary maintenance activities; coordinates laboratories for material and structural testing; and oversees surveys of structures and infrastructures. Potential employers: • Technical offices of public bodies and engineering companies operating in the construction sector.
Plant Management Technician	Functions: • Manages processes in companies and plants with tasks that involve operations, analysis, and control of environmental aspects. • Focuses on limiting pollutant emissions to mitigate environmental impacts, treating wastewater and gaseous emissions, and managing and controlling plants for water, waste, soil treatment, and air emission recovery. Competencies: • Applies calculation methods for emission estimates, utilizes sanitary engineering methods and tools, and understands regulatory principles, circular economy, and environmental regulations. Potential employers: • Large companies in strategic sectors such as environment, energy, and agri-food.
Construction Site Technician	Functions: • Works on risk prevention and control in hydrogeological contexts and supervises restoration projects following territorial collapses caused by natural or anthropogenic factors. • Operates on excavation sites and manages underground infrastructure works. Competencies: • Skilled in geotechnical and hydraulic engineering methods and tools, with additional competencies in geology, geophysics, and structural engineering. Potential employers: • Engineering firms, construction companies, and professional studios.
Management Technician	Functions: • Manages environmental management systems, quality control, eco-environmental compatibility assessments, and the safety of production processes in both small-medium enterprises and large companies. Competencies: • Knowledgeable in circular economy principles, environmental regulations, and management methods for estimating emissions, impacts, and risks. Potential employers: • Small and medium-sized enterprises, as well as large companies in the manufacturing sector.

1.3 Professional profiles (ISTAT codes)

With reference to the list of professional profiles classified by ISTAT (Italian National Institute of Statistics, https://www.istat.it/en/), a graduate from this Bachelor's degree programme can work as:

ISTAT code	Description
3.1.3.2.2	Tecnici minerari
3.1.3.5.0	Tecnici delle costruzioni civili e professioni assimilate
3.1.5.1.0	Tecnici di produzione in miniere e cave
3.1.8.2.0	Tecnici della sicurezza sul lavoro
3.1.8.3.1	Tecnici del controllo ambientale

Art. 2 - Admission requirements

To be admitted to this Bachelor's degree programme, applicants must hold a high school diploma (as required by current regulations) or an equivalent qualification obtained abroad, recognized as valid. Additionally, they must have or attain an appropriate level of initial background knowledge.

The number of admissible students is determined annually by the Governing Bodies of Politecnico based on locally programmed admissions, considering the available facilities and the student-to-faculty ratio.

The number of available places and admission procedures are specified in the official Call for applications for admissions published at https://www.polito.it/en/education/applying-studying-graduating/admissions-and-enrolment/bachelor-s-degree-programmes/calls-for-application-regulations-and-ranking-lists .

In particular, for enrolment in this Bachelor's degree programme, applicants must take an admission test (TIL-I), administered in different sessions according to a specific calendar published on the recruitment web pages.

The test is conducted using the technical equipment available in the computer laboratories of the University.

The minimum score required to be included in the ranking list is set at 30% of the total score. Applicants may take the TIL-I test up to a maximum of three times. In the event of multiple attempts, the highest score obtained by the applicant will be considered valid. The test consists of answering 42 questions in 1 hour and 30 minutes. These questions are divided into four sections covering four different subject areas: Mathematics, Reading Comprehension and Logical Reasoning, Physics, and Basic Technical Knowledge.

Applicants who score below 30% in the Mathematics section will have to fulfil some supplementary academic obligations (in Italian, Obblighi Formativi Aggiuntivi - OFA).

They will be invited to attend tutoring math classes during Year 1 and they must attend a supplementary course. This course, called C.I.A.O. - Corso Interattivo di Accompagnamento Online (Interactive Online Support Course), is normally offered in the week before the beginning of classes. It seeks to help applicants fill in the gaps in their Math knowledge through specific online tutoring sessions.

The OFA requirements will be considered fulfilled if, by the end of Year 1, at least one of the following conditions is met:

- students pass one of the two Mathematics exams of Year 1 (Mathematical Analysis I or Linear Algebra and Geometry);
- students pass the final test of the CIAO course by correctly answering at least 10 out of 15 questions. This test will be offered three times during the academic year.

Any exemptions from taking the admission test are specified in the Call for applications for admissions to the Bachelor's degree programmes of Politecnico di Torino.

Since all the courses of this Bachelor's degree programme are taught exclusively in English, at the time of enrolment students must have an English language certificate (B2-level or above), as defined by the Common European Framework of Reference for Languages (CEFR).

For more information regarding the Call for applications, the number of admissions, the admission test registration and enrolment procedures, please visit https://www.polito.it/en/education/applying-studying-graduating/admissions-and-enrolment/bachelor-s-degree-programmes/calls-for-application-regulations-and-ranking-lists .

Art. 3 - Programme curriculum

3.1 Programme overview

The educational pathway is one (without specializations or specialist pathways) and is designed to train a professional who can understand the impact of engineering solutions applied to the civil and environmental sectors within their social context. The programme offers them the cognitive tools necessary for continuously updating their knowledge, enabling active participation in the technological innovation process.

The curriculum is organized into interconnected thematic areas: basic scientific subjects (Year 1 and 2), basic engineering subjects (Year 2 and 3) and specific scientific and engineering subjects (Year 2 and 3).

- Basic Scientific Subjects initially provide the concepts and tools required to understand the physical world and to simulate the events, processes, and phenomena occurring within it. This group of disciplines includes courses in mathematics, physics, chemistry, and computer science.
- Basic Engineering Subjects develop the knowledge and ability to comprehend the theoretical principles and methods of the basic sciences as applied to engineering problems, with particular reference to civil engineering works, their integration into the territory, and the environmental processes related to both solid and fluid media. This group of disciplines includes courses in solid and fluid mechanics, surveying, geology and geotechnics, and materials science.
- Specific Scientific and Engineering Subjects cover the broad disciplinary field of civil and environmental engineering. They ensure that students can either continue their studies with a solid foundation or acquire the broad preparation necessary to enter the world of work. This group includes courses on the fundamentals of environmental engineering, principles of sustainability and circular economy, the design of structures and infrastructures (hydraulic and transportation), and parametric digital modelling for managing design processes.

Students also have the opportunity to select other courses from the course catalogue through free choice credits (optional courses) in order to:

1. apply their skills to the Big Global Challenges, and
2. complete and deepen their knowledge on emerging engineering topics.

Since the Bachelor's degree programme is entirely taught in English, having an English language certificate (B2 - level or higher — according to the Common European Framework of Reference for Languages - CEFR) — is an admission requirement. Language proficiency is verified at the time of enrolment, after which students are awarded 3 credits (CFU) for foreign language proficiency.

3.2 Organization of educational activities

The list of courses (compulsory and optional), curricula, possible organization of courses into modules, any pre-requisites and exclusions and the list of the faculty members responsible for the courses are available at: https://didattica.polito.it/pls/portal30/sviluppo.offerta_formativa_2019.vis?p_a_acc=2026&p_sdu=32&p_cds=465

The list of the Scientific Disciplinary Fields (Settori Scientifico Disciplinari) for each activity (specific subjects and complementary subjects) is available at: https://didattica.polito.it/pls/portal30/sviluppo.vis_aiq_2023.visualizza?sducds=32465&tab=0&p_a_acc=2026

Art. 4 - Student career

The Student Guide is published on the Teaching Portal every year before the beginning of the academic year. There is a specific Student Guide for each Bachelor's degree programme. The Student Guide is available on the web site of the degree programme.

It contains information and deadlines on:

- academic calendar;
- supplementary academic obligations (Obblighi Formativi Aggiuntivi - OFA);
- Personal Study Plan and Annual Personal Study Plan;
- free choice credits;
- internships;
- tuition fees;
- dual career;
- classes and exams;
- class delivery;
- foreign language learning;
- studying abroad/mobility programmes;
- exam rules;
- transfers in/out and internal transfers;
- interruption, suspension, withdrawal, forfeiture;
- credit transfer.

Art. 5 – Final Examination

For the Final Examination students are required to autonomously prepare a written paper (final project). The final project is worth 3 credits and involves in-depth studies, analyses, developments or applications of the topics covered in the courses of the Bachelor's degree programme, or other topics consistent with the educational objectives of the programme.

The final project aims to verify the individual ability to integrate the knowledge acquired across the various courses, to apply it, develop it further and to communicate the results.

To complete the final project, students must draft a concise report on a topic proposed within the subject matter of the relevant course. The topics are consistent with the educational objectives of the programme. The final project must be submitted to the examination committee of the course responsible for its evaluation.

No public defence is required. The final project is written in English.

Students must submit their application online through a dedicated procedure available on their personal page of the Teaching Portal under the portlet called "Degree and Final Examination", ensuring they meet the deadlines for the desired graduation period as published in the Student Guide – Thematic Calendar section.

The final grade is determined by the Graduation Examining Committee, which evaluates the overall average grade of the exams on a scale of 110 after having subtracted the 16 worst credits. This number is proportionally reduced if some of the exams have been validated without a grade (pass-or-fail exams) or in the event of credit transfer, since only the exams taken at Politecnico are taken into consideration for this calculation. Additionally, the Committee may add up to a maximum of 5 points to this average, considering:

- the evaluation of the written paper;
- the number of years it took the student to complete his/her studies;
- other information about the student's course of study (for instance, the number of exams passed with honours, experience abroad, extracurricular activities etc.).

Students enrolled at Politecnico for the first time starting from a.y. 2022/2023 (and following aa.yy.) who pass their first-year courses and the core courses offered in Year 2 (Mathematical Analysis 2 and Physics 2) by the end of the examination session which immediately follows the semester of first course attendance will get a bonus (0.5 points for each exam) that will be added to the final grade, up to a maximum of 4 points.

Honours may be awarded upon achieving a final grade of 110, at the discretion of the Committee and by a qualified majority (i.e. at least two-thirds of the committee members).

More Information and Deadlines:

- Student Regulations
- Student Guide

Diploma Supplement:

In compliance with article 11, paragraph 8, of Ministerial Decrees No. 509/1999 and 270/2004. Politecnico di Torino issues the Diploma Supplement, a document that can be attached to a higher education qualification. It is designed to improve the transparency of international qualifications, as it provides the description of the curriculum successfully completed by the student. This certificate follows the European model developed by the European Commission, the Council of Europe and UNESCO – CEPES: it is issued in two languages (Italian-English) and it is composed of approximately 10 pages.

More information at: https://www.polito.it/en/education/applying-studying-graduating/academic-experience/certificates-and-other-documents

Art. 6 - References

6.1 Student Regulations

The Student Regulations define the rights and responsibilities of students and set out the administrative and disciplinary rules that all students enrolled in a degree programme or in a single learning activity at Politecnico must abide by.

6.2 Other Regulations

Particular aspects of students' academic progress are governed by specific Regulations or Calls for Applications published on its website.
In particular:

- The Tuition Fee Regulations specify the annual tuition fees that students must pay. The procedure for requesting a tuition fee reduction is explained in a dedicated guide.
- The University Regulations on Funds for Student Mobility Abroad outline the principles and rules for awarding and disbursing mobility grants. Standard procedures apply to all types of mobility programmes with unified Calls for Applications published twice a year at https://www.polito.it/en/education/applying-studying-graduating/studying-abroad
- The Code of Ethical Conduct also applies to students.