

The Rector



POLITECNICO
MILANO 1863

HAVING REGARD TO Politecnico di Milano's Articles of Association;
HAVING REGARD TO Ministerial Decree 3.11.1999, no. 509;
HAVING REGARD TO Ministerial Decree 22.10.2004, no. 270;
HAVING REGARD TO the University's Educational Rules - Regulations;
HAVING REGARD TO the Regulation for 1st and 2nd level Specialising Masters, Post Graduate Courses and Continuing Education of Politecnico di Milano issued with Rector's Decree no. 0227162 of 04.10.2022;
HAVING ACQUIRED the favourable opinion of the Academic Senate during the meeting on 19.06.2023, on the establishment and activation of proposals for Specialising Masters, including the first level Specialising Master in "BIM FOR PROJECT AND CONTRACT MANAGEMENT IN CONSTRUCTION WORKS"

DECREES

that the first level Specialising Master in "BIM FOR PROJECT AND CONTRACT MANAGEMENT IN CONSTRUCTION WORKS" is established and activated for the years 2024/2025.

ART. 1

Master's features

The first level Specialising Master in "BIM FOR PROJECT AND CONTRACT MANAGEMENT IN CONSTRUCTION WORKS" has been set up and activated at the Architecture, Built Environment and Construction Engineering Department.

The Master is provided by Consorzio CIS-E - Politecnico di Milano. The reference school is the School of Architecture Urban Planning and Construction Engineering.

The Specialising Master's Director is Professor Pietro Giuseppe Crespi. The Vice Director is Professor Roberto Cigolini.

The Scientific Committee of the Specialising Master programme is composed by: Gianandrea Ciaramella, Roberto Cigolini, Pietro Giuseppe Crespi, Paola Ronca and Alberto Franchi; and by eng. Giovanni Franchi and Marco Zucca from Consorzio CIS-E - Politecnico di Milano.

ART. 2

Educational objective and employment opportunities

This specializing master course aims to give the main tools of project and contract management to both engineers and architects. Nowadays it is getting more and more important to know how any project should be managed from its inception to its end, in order to optimize costs and to get forward according to a predefined schedule. During this specializing master the students will be introduced to the theory of project management, of investment valuation, and financial accounting. They will receive all the information needed to obtain the PMI (Project Management Institute) certifications and the IPMA (International Project Management Association) certifications. They will receive all the information needed to become a Lean Green Belt Project Leader. They will also be introduced to data analysis. They will be introduced to forensic engineering with specific regard to how the FIDIC contracts are to be written, read, and managed. Delay analysis and determination of the quantum are two important units about contract management. All these PM and contract management tools will be enhanced with BIM (Building Information Modeling) softwares for architectural design, structural design, mechanical design, and facility management. The BIM philosophy and its softwares have proven to be very

useful: both engineers and architect must get acquainted with them. They will permit a team of architects, engineers and project managers to be more integrated and to work more seamlessly toward the shared goal of project completion in time and on budget.

The job opportunities opened by the skills acquired following the lessons of this specializing master are varied and plentiful: construction companies, architectural firms, engineering companies, real-estate developers, general contractors, government agencies, etc., all of them need and look for project and contract managers who know how to use the BIM tools and are specializing in the digitalization of the construction industry.

The Programme will be delivered in English language and will be taught online.

ART. 3 Teaching content and organisation

The Specialising Master's will start in **March 2024** and will end in **March 2025**.

This specializing master is made of 534 hours of lectures split between 414 hours of various project and contract management subjects and 120 hours of BIM management. No intermediate tests are scheduled, while at the end of the course 180 working hours will be dedicated to the writing of a master thesis that will be reviewed and judged by the academic committee. The subject of the master thesis will be explained to the students at the end of the period of lessons. After that each student will be able to write her/his master thesis autonomously.

The master's is a **60 ECTS** programme and teaching will be organised as follows:

| Didactic activity | MANDATORY Courses | | |
|---|--------------------------|--------------------------------|-------------|
| Course | SSD | Total hours of activity | ECTS |
| BIM Regulations and standards | ICAR/14 | 40 | 1,5 |
| Data as asset: PIM (Product Information Modeling) and AIM (Asset Information Modeling) | ICAR/09 | 90 | 3,5 |
| Schedule and computing (4D and 5D) | ING-IND/09 | 25 | 1 |
| Building management and maintenance (6D and 7D) | ICAR/09 | 25 | 1 |
| Common data environment and other tools for the digital future of the construction field | ICAR/12 | 50 | 2 |
| Oracle Primavera P6 | ICAR/12 | 50 | 2 |
| Legal BIM | ICAR/12 | 25 | 1 |
| Fundamentals of management engineering | ING-IND/35 | 225 | 9 |
| IPMA® International Project Management Certification (Level D, Level C, Level B, Level A) | ING-IND/35 | 50 | 2 |
| PMI project management certifications (CAPM® and PMP®) | ING-IND/35 | 128 | 5 |
| Lean Six Sigma Green Belt Project Leader | ING-IND/28 | 155 | 6 |

| | | | |
|---|------------|----|---|
| Real estate valuation and valorization | ICAR/12 | 82 | 3 |
| Leadership & soft skills + communication and public speaking | ING-IND/35 | 68 | 3 |
| Data analyst | ICAR/12 | 50 | 2 |
| Data analysis with Matlab | ICAR/12 | 25 | 1 |
| Contracts by international standards (FIDIC, JCT, NEC, AAA) | ICAR/11 | 25 | 1 |
| Introduction to Contract Management for FIDIC contracts (Red, Pink, Yellow, and Silver) | ICAR/12 | 50 | 2 |
| Introduction to Claim Management for FIDIC contracts (Red, Pink, Yellow, and Silver) | ICAR/12 | 50 | 2 |
| Introduction to Delay Analysis | ICAR/12 | 50 | 2 |
| Determination of the quantum | ICAR/12 | 25 | 1 |
| Forensic Engineering: from claim to dispute, dispute boards, arbitration | ICAR/22 | 75 | 3 |

| Other activities | MANDATORY Courses | | |
|---|-------------------|-------------------------|------|
| Course | SSD | Total hours of activity | ECTS |
| Dissertation writing, discussion and final exam | n.a. | 150 | 6 |

ART. 4 Admission requirements

The admission is open to candidates holding a Bachelor or Master of Science in Engineering, Architecture and similar scientific disciplines. Equivalent foreign qualification in their respective University Systems will be considered valid.

The maximum number of admitted students is 50. The selection process is carried out by the Scientific Committee.

ART. 5 Formal requirements

The **admission application** must be submitted to the managing authority starting from the day after the date of this Decree and by **March, 13th 2024.**

The admission application must state the following "I authorise this University, under EU Regulation no. 2016/679 on data protection, to process personal data only for purposes related to the Master's admission, enrolment and management, and agree to the disclosure of my personal information to third parties, particularly:

- public and private entities possibly interested in recruitment;
- to academic programme backers; Politecnico Treasurer for services related to tuition fees;
- to Managing Authorities managing loans, housing, flexible employment contracts, cultural, recreational and/or sport activities.
- I authorise the use of the data for statistical purposes in respect of the procedures and authorisations required by the cited regulation.

The extended information on data processing and data subject rights is available on the website www.polimi.it/privacy

The admission documentation is available from the following website <https://www.masterpesenti.polimi.it/modulistica.php> or contacting the secretary at the following number and email +39 02.2399.4341, franchi@cise-polimi.it.

The documents listed below must be sent to:

Consorzio CISE/Scuola Master f.lli Pesenti

P.ZZA LEONARDO DA VINCI, 32

20133 MILANO (MI)

Phone: +39 02 2399 4341/4381

Email: franchi@cise-polimi.it ; paola.ronca@polimi.it

*** Italian/foreign citizens who graduated in Italy**

- copy of the identity document
- copy of the Diploma Supplement or photocopy of the degree diploma

*** Italian/EU citizens with qualification obtained abroad**

- copy of the identity document
- **copy of the academic qualification** in original language and its translation into Italian/English/French or Spanish
- copy of transcripts with the list of exams in the original language and their translation into Italian/English/French or Spanish or Diploma Supplement in English (**when enrolling, the students have to submit either the Declaration of Value issued by the relevant area's Italian Representative abroad or a certificate issued by the Enic/Naric Centres**)

Under Art. 75 of Italian Presidential Decree 445/2000, if the Administration, after carrying out suitable checks, finds that the content of the declarations made by the applicant is untrue, the declarant forfeits any benefits obtained through the untrue declaration.

*** Non-EU citizens who graduated abroad**

Non-EU foreign citizens must submit the following documents to the Managing Authority:

- **copy of the degree** in the original language and its translation into Italian/English/French or Spanish
- **copy of the transcripts** with the list of exams in the original language and their translation into Italian/English/French or Spanish **or Diploma Supplement**
- **copy of a valid passport**

at least 30 days before the closing date of the registration period as indicated in this article.

The Managing Authority shall send the documentation listed above to Politecnico di Milano Masters and Continuous Educations unit, for the evaluation of qualifications, **by the closing date of this call for applications**, in accordance with the MIUR/MAE's note " Procedures for entry, residency and enrolment of international students and the respective recognition of qualifications, for higher education courses in Italy for the academic year 2023/2024"

After the acceptance from the University, and only after confirming to the Managing Authority their participation to the programme in accordance with its procedures, students will have to register on the Ministerial portal <https://www.universitaly.it> . Once the registration has been completed, the student will have to inform the the Managing Authority, so that the application can be sent to the authorities responsible for issuing the entry visa.

ENROLMENT PROCESS:

Students admitted to the Master's Programme must create access credentials to Politecnico di Milano's online services on the website www.polimi.it. They also must enter their details, attach a valid identity document (passport for non-EU citizens) in order to create a **person code**, and send it to the Master's Managing Authority. Students already registered have to update their personal details, if they are obsolete.

Portal access credentials must be safely kept since they will be required for the access to all Politecnico di Milano's services. Lost credentials can be autonomously restored or obtained through an OTRS ticket.

Politecnico creates a temporary student identification number to allow the student to pay the enrolment fee via online services.

The achievement of an Italian degree can be self-certified by completing the appropriate form provided by the Managing Authority. A degree obtained abroad must be documented by presenting either a **Declaration of Value (DOV)** issued by the Italian Representative abroad (Italian Embassy or Consulate) on letterhead along with its original stamp; **or a certificate issued by the Enic/Naric Centres.**

In addition to the above documentation, **non-EU citizens must upload a copy of a valid entrance document as well as the residence permit, on their online services personal data record.**

In order to be enrolled at Politecnico di Milano, regardless of the Master's delivery mode (in person, online/distance learning), **non-EU citizens must upload a copy of a valid passport on their online services personal data record.**

ART. 6 Degree and award recognitions

ISSUED CERTIFICATION

In order to be able to take the final exam, students admitted to the Master's final examination have to pay the due fee through the online services of Politecnico di Milano.

At the end of the Programme, upon completion of the course and after passing the final test, the student will be awarded the first level specialising Master "BIM for Project and Contract Management in Construction Works", in English language.

STUDENT OBLIGATIONS

Attendance is compulsory for at least 80 per cent of the programme activities.

Withdrawal from the Programme must be communicated in written form. The training period cannot be suspended for any reasons.

TESTING METHODS

The final exam will consist of the discussion online of the master's thesis.

ART. 7 Tuition fees and contributions

The cost of this Specialising Master programme is € **3.500,00** divided as follows:

- Politecnico di Milano enrolment fee is € **500,00** per student.
- Participation fee is € **3.000,00** per student

Enrolment and participation fees may be paid as follows:

- First instalment: € **2.000,00** by 17/03/2024.
- Second instalment: € **1.500,00** by 17/07/2024.

Politecnico di Milano enrolment fee will not be refunded under any circumstances.

Enrolment and participation fees can be paid to the bank account IBAN number: IT89N0306909498100000001001 – Account no. 100000001001 – CAB 09498 – ABI 03069 – CIN EUR 02 – CIN IT L – account holder Consorzio CIS-E - Politecnico di Milano - at Banca Intesa San Paolo – Viale Romagna, 22, 20133 Milano (MI)

Specifying as the reason for the payment: **ID 2682 MU1 BIM for Project & Contract Management in Construction Works.**

ART. 8
Personal data processing

Under EU Regulation no. 2016/679 on data protection, the University processes personal data only for purposes related to the master's admission, enrolment and management, and you agree to the disclosure of your personal information to third parties, particularly:

- public and private entities possibly interested in recruitment;
- to academic programme backers; Politecnico Treasurer for services related to tuition fees;
- to Managing Authorities managing loans, housing, flexible employment contracts, cultural, recreational and/or sport activities.

- I authorise the use of the data for statistical purposes in respect of the procedures and authorisations required by the cited regulation.

The extended information on data processing and data subject rights is available on the website www.polimi.it/privacy

ART. 9
Publication

This Decree is made public on Politecnico di Milano's website at <https://www.polimi.it/corsi/master-universitari-e-corsi-post-laurea/>

FOR CLARIFICATIONS AND FURTHER INFORMATION, PLEASE CONTACT:

Prof. Paola Ronca

Consorzio CIS-E - Politecnico di Milano

P.zza L. Da Vinci, 32

20133 Milano (MI)

Phone: +39 02.2399.4341/4381

Email: franchi@cise-polimi.it; paola.ronca@polimi.it

Web site: <http://www.masterpesenti.polimi.it/>

The Rector
(Prof. Donatella Sciuto)
Signed Donatella Sciuto

Digitally signed document, under legislation.