




MASTER OF SCIENCE COURSE
Management of built environment



POLITECNICO
MILANO 1863

BACHELOR OF SCIENCE

PROGETTAZIONE DELL'ARCHITETTURA  MILANO
MANTOVA
PIACENZA


URBANISTICA: CITTA'
AMBIENTE E PAESAGGIO  MILANO

INGEGNERIA E TECNICHE PER
L'EDILIZIA E L'ARCHITETTURA  MILANO

FIVE-YEAR DEGREE

INGEGNERIA
EDILE - ARCHITETTURA  LECCO

MASTER OF SCIENCE

ARCHITETTURA- AMBIENTE COSTRUITO - INTERNI
ARCHITETTURA E DISEGNO URBANO
ARCHITETTURA DELLE COSTRUZIONI  MILANO

ARCHITECTURAL DESIGN AND HISTORY  MANTOVA

SUSTAINABLE ARCHITECTURE AND
LANDSCAPE DESIGN  PIACENZA

LANDSCAPE ARCHITECTURE
LAND LANDSCAPE HERITAGE  MILANO

URBAN PLANNING AND POLICY
DESIGN  MILANO

INGEGNERIA DEI SISTEMI EDILIZI  MILANO

BUILDING AND ARCHITECTURAL
ENGINEERING  MILANO - LECCO

MANAGEMENT OF BUILT ENVIRONMENT  MILANO

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THE COURSE

(Management of Built Environment)



This Master of Science (held in English) allows to become engineers with wide-ranging technical-managerial skills capable of working in various built management field.

It is a degree that meets the needs of the market, asking for multidisciplinary professional figures with technical, economic and managerial capabilities.

For these reasons, this Master of Science is extremely innovative and unique in Italy allowing to responds to new scenarios.

Main distinctive features:

- It isn't the continuation of any Bachelor's Degree
- It is the unique Master of Science in collaboration between two Schools of Politecnico di Milano: the School of Architecture Urban Planning and Construction Engineering and the School of Industrial and Information Engineering
- It is the unique degree that provides access without credits to different three-year graduates of Politecnico di Milano

THE PROFESSION OF ENGINEERS WORKING IN THE MANAGEMENT OF BUILT ENVIRONMENT

This profession is represented by engineers with wide-ranging technical-managerial skills capable of working in various built management fields, able to face and respond to new challenges in AEC (Architecture, Engineering and Construction) sector



COMPETENCES



Main skills/competences

- Strategic management of real estate assets;
- Maintenance service management and design;
- Organization and design of integrated management services relating to real estate;
- Organization and design of real estate management services designed to ensure maximum operational efficiency and maximize earnings;
- Design, implementation and execution of the maintenance activities for buildings with attention to the economic-managerial aspects of such processes.

PROFESSIONAL OPPORTUNITIES



Main fields/opportunities

- Real estate companies;
- Banks, foundations, insurances and, in general, companies owning large building stocks;
- Companies and public institutions managing building stocks with different uses (dwellings, production facilities, offices, etc.);
- Facility management companies;
- Financial companies, investment banks, consultants about project financing;
- Real estate funds management companies;
- Real estate consulting companies;
- Architecture and engineering firms;
- Consulting companies.

ADMISSION REQUIREMENTS



Required requirements:

- Certification of the English language
- 1° or 2° cycle Degree (without educational debits):

- Building Engineering (Ingegneria dell'Edilizia/Ingegneria Edile) (L-23)
- Civil Engineering (Ingegneria Civile) (L-7)
- Management, Economics and Industrial Engineering (Ingegneria Gestionale) (L-9)
- Environmental Architecture (Architettura Ambientale) (L-17)
- Architecture (Architettura delle Costruzioni) (L-17)
- Architecture and Building Production (Architettura e Produzione Edilizia) (L-23)
- Architectural Design (Progettazione Architettonica) (L-17)
- Architectural Sciences (Scienze dell'Architettura) (L-17)

N.B. Admission is also permitted to graduate students with other Degree. A previous career assessment may identify one or more educational debits

ADMISSION REQUIREMENTS



The number of planned admissions for the Master of Science in MANAGEMENT OF BUILT ENVIRONMENT for the Academic Year 2018-19 is 100 students

Procedure for the application

- The application for the career evaluation must be presented using the service activated on www.webpoliself.polimi.it, “Ammissione alla Laurea Magistrale” or “Apply to Laurea Magistrale”
- For detailed information about admission requirements, look at the websites:
- www.auic.polimi.it
- www.ccsmb.polimi.it

TEACHING ACTIVITY AND ATTENDANCE



- Ex-cathedra lessons
- Exercitations/team work
- Laboratory activities

FREQUENCY: It is not mandatory but it is strongly recommended to facilitate learning through a continuous interaction with teachers, assistants and technical staff.

FINAL TEST: It consists of presentation and discussion of a final work (graduation work). This means an original work for scientific content (theoretical, numerical or experimental), or for the complexity and multidisciplinary. Rules and information about this are available at:
<http://www.auic.polimi.it/didattica/esami-di-laurea-e-laurea-magistrale/esami-di-laurea-magistrale/regolamento-esami-di-laurea-magistrale/>

PROGRAMME REQUIREMENTS TO OBTAIN THE MSC DEGREE



- As specified in the didactic regulations, 120 credits are required to obtain the degree.
- Matters are those in typical fields such as Building Technology, Construction etc. while some more integrative courses are about law and management engineering.
- 15 credits are devoted to final laboratory and thesis work.
- It is also possible to take the so-called «Esame di Stato», but in the category «Ingegneria Civile ed Edile»

TRACKS (PIANI DI STUDIO)



It is possible to choose between two different tracks (piani di studio) from the beginning:

- **TECHNICAL CURRICULUM:** focus on the physical and technical aspects involved in the management and assessment of the real estate sector
- **ECONOMIC CURRICULUM:** focus on management of economic aspects of real estate sector

TECHNICAL CURRICULUM – 1 YEAR

SEM	SSD	COURSE	CFU
1	ING-IND/35 ICAR/10	Two possible exams: <ul style="list-style-type: none"> • <u>BUSINESS ECONOMICS</u> (Graduates in Building Eng. or Architecture or Civil Eng. or Environmental and land planning Eng.) • <u>BUILDING TYPES AND CONSTRUCTION METHODS</u> (Graduates in Management Engineering) 	9
	ING-IND/17 ICAR/11	Two possible exams: <ul style="list-style-type: none"> • <u>LOGISTICS AND OPERATIONS MANAGEMENT</u> (Graduates in Building Eng. or Architecture or Civil Eng. or Environmental and land planning Eng.) • <u>BUILDING AND CONSTRUCTION TECHNOLOGIES</u> (Graduates in Management Engineering) 	9
	ICAR/12	<u>TECHNICAL ASSESTMENT OF THE BUILT ENVIRONMENT</u>	9
Tot 1° semester			27
2	ICAR/21	<u>METHODS AND TOOLS FOR ANALYSIS OF URBAN AND TERRITORIAL SYSTEMS</u>	6
	ICAR/11	<u>DURABILITY AND MAINTENANCE</u>	12
	SECS-P/06	<u>REGIONAL ECONOMICS + LAND RENT THEORY</u>	12
DIFFERENCES BETWEEN THE TWO TRACKS			Tot 2° semester 30
			TOT 1° YEAR 57

TECHNICAL CURRICULUM – 2 YEAR

SEM	SSD	COURSE	CFU
1	ICAR/11	<u>CONSTRUCTION MANAGEMENT</u>	12
	ICAR/11	<u>BUILDING MAINTENANCE PROCEEDINGS AND METHODS</u>	9
	ICAR/12	<u>FACILITY MANAGEMENT LAB</u>	6
Tot 1° semester			27
2	ICAR/12	<u>TOOLS AND MODELS FOR THE DESIGN OF BUILT ENVIRONMENT</u>	9
	IUS/10	<u>ADMINISTRATIVE AND PUBLIC PROCUREMENT LAW</u>	6
	SECS-P/06	<u>ECONOMIC ASSESTMENT OF URBAN TRANSFORMATION</u>	9
Tot 2° semester			24
1 o 2		<u>INTERNSHIP</u>	3
1 o 2		<u>SYNTHESIS CLASS – THECNICAL CURRICULUM</u>	9
DIFFERENCES BETWEEN THE TWO TRACKS			Tot 12
TOT 2° YEAR			63

ECONOMIC CURRICULUM – 1 YEAR

SEM	SSD	COURSE	CFU
1	ING-IND/35 ICAR/10	Two possible exams: <ul style="list-style-type: none"> • <u>BUSINESS ECONOMICS</u> (Graduates in Building Eng. or Architecture or Civil Eng. or Environmental and land planning Eng.) • <u>BUILDING TYPES AND CONSTRUCTION METHODS</u> (Graduates in Management Engineering) 	9
	ING-IND/17 ICAR/11	Two possible exams: <ul style="list-style-type: none"> • <u>LOGISTICS AND OPERATIONS MANAGEMENT</u> (Graduates in Building Eng. or Architecture or Civil Eng. or Environmental and land planning Eng.) • <u>BUILDING AND CONSTRUCTION TECHNOLOGIES</u> (Graduates in Management Engineering) 	9
	ICAR/12	<u>EVALUATION AND MANAGEMENT OF REAL ESTATE</u>	9
Tot 1° semester			27
2	ICAR/21	<u>METHODS AND TOOLS FOR ANALYSIS OF URBAN AND TERRITORIAL SYSTEMS</u>	6
	ICAR/10 ICAR/19	<u>VALORISATION OF HISTORICAL BUILDINGS + VALORISATION OF CULTURAL HERITAGE</u>	12
	SECS-P/06	<u>REGIONAL ECONOMICS + LAND RENT THEORY</u>	12
DIFFERENCES BETWEEN THE TWO TRACKS			30
Tot 2° semester			30
TOT 1° YEAR			57

ECONOMIC CURRICULUM – 2 YEAR

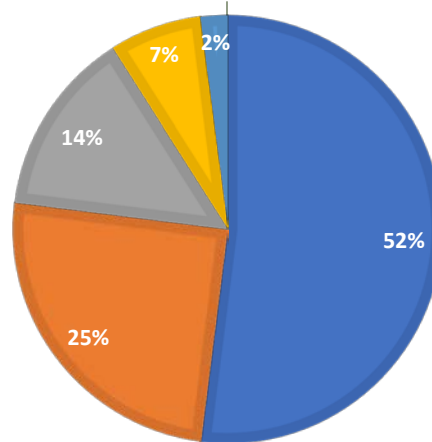
SEM	SSD	Insegnamento	CFU
1	ICAR/12 ING-IND/35	<u>FINANCIAL MANAGEMENT OF REAL ESTATE TRANSACTIONS + PROJECT MANAGEMENT</u>	12
	ICAR/11	<u>BUILDING MAINTENANCE PROCEEDINGS AND METHODS</u>	9
	ICAR/12	<u>INFORMATION SYSTEMS FOR THE MAINTENANCE AND MANAGEMENT</u>	9
Tot 1° semester			27
2	ING-IND/17	<u>CONSTRUCTION SUPPLY CHAIN MANAGEMENT</u>	6
	IUS/10	<u>ADMINISTRATIVE AND PUBLIC PROCUREMENT LAW</u>	6
	SECS-P/06	<u>ECONOMIC ASSESTMENT OF URBAN TRANSFORMATION</u>	9
Tot 2° semester			24
1 o 2		<u>INTERNSHIP</u>	3
1 o 2		<u>SYNTHESIS CLASS – ECONOMIC CURRICULUM</u>	9
DIFFERENCES BETWEEN THE TWO TRACKS			Tot 12
TOT 2° YEAR			63

DATA ABOUT GRADUATES (2015-16)

Total graduates	66 (Milan)
Graduates interviewed	51 (77,3% of Graduates)
Employment rate	90%

CONTRACT TYPE

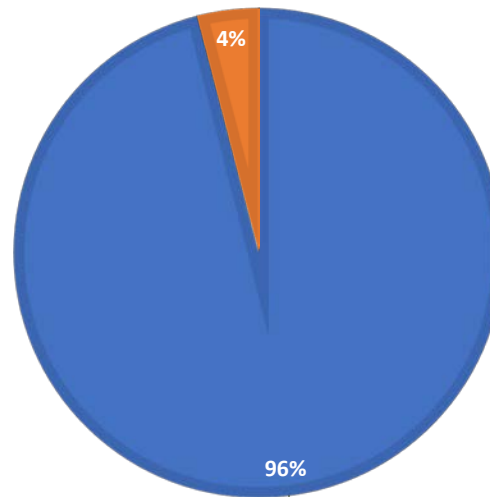
■ Permanent work ■ Temporary work ■ Apprenticeship ■ Internship ■ other



DATA ABOUT GRADUATES (2015-16)

TYPE OF ACTIVITY

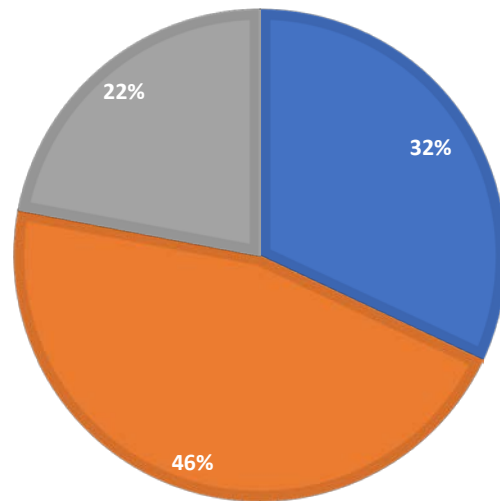
■ Employees ■ Self employed



DATA ABOUT GRADUATES (2015-16)

COMPANY SIZE

■ 1-49 employees ■ 50-499 employees ■ >500 employees



DOUBLE DEGREE WITH MANAGEMENT ENGINEERING



To achieve a double degree it is necessary to achieve a logical sequence of courses:

in a total of THREE YEARS

to achieve 180 CFU

You follow your course in MBE as you were doing only one degree, and in each year you add specific courses of the other degree.

N.B. Only 10 students are selected every year

STRUCTURE OF DOUBLE DEGREE (Intage Management of Built Environment)



1st Year

MBE
(57 credits)

Management Engineering
(10 credits)

2nd Year

MBE
(51 credits)

Management Engineering
(10 credits)

3rd Year

Thesis and Internship
(17 credits)

Management Engineering
(35 credits)

DOUBLE DEGREE – FIRST YEAR

Code	SSD	Course title	Type	Sem	ECTS	ECTS group
096307	ING-IND/35	BUSINESS ECONOMICS	M	1	9	9
097610	ING-IND/17	PRODUCTION MANAGEMENT	M	1	9	9
096315	ICAR/12	EVALUATION AND MANAGEMENT OF REAL ESTATE	M	1	9	9
096312	ICAR/21	METHODS AND TOOLS FOR ANALYSIS OF URBAN AND TERRITORIAL SYSTEMS	M	2	6	6
096314	SECS-P/06	REGIONAL ECONOMICS + LAND RENT THEORY	M	2	12	12
096334	ICAR/10 ICAR/19	VALORISATION OF HISTORICAL BUILDINGS + VALORISATION OF CULTURAL HERITAGE	I	2	12	12

Code	SSD	Course title	Type	Sem	ECTS	ECTS group
096076	ING-IND/35	LEADERSHIP & INNOVATION	M	2	10	10
096088	ING-IND/17	OPERATIONS MANAGEMENT	M	1/2	10	
096090	ING-IND/17	INDUSTRIAL TECHNOLOGIES*	M	1/2	10	

DOUBLE DEGREE – SECOND YEAR

Code	SSD	Course title	Type	Sem	ECTS	ECTS group
096317	ICAR/11	BUILDING MAINTENANCE PROCEEDINGS AND METHODS	M	1	9	9
096328	ICAR/12 ING-IND/35	FINANCIAL MANAGEMENT OF REAL ESTATE TRANSACTIONS + PROJECT MANAGEMENT	I	1	12	12
096429	ICAR/12	INFORMATION SYSTEMS FOR THE MAINTENANCE AND MANAGEMENT	M	1	9	9
096320	IUS/10	ADMINISTRATIVE AND PUBLIC PROCUREMENT LAW	M	2	6	6
096321	SECS-P/06	ECONOMIC ASSESSMENT OF URBAN TRASFORMATIONS	M	2	9	9
096326	ING-IND/17	CONSTRUCTION SUPPLY CHAIN MANAGEMENT	M	2	6	6

Code	SSD	Course title	Type	Sem	ECTS	ECTS group
096078	ING-IND/35	ACCOUNTING, FINANCE & CONTROL (1)	M	1	10	10
096080	ING-IND/35	STRATEGY & MARKETING	M	1	10	
096088	ING-IND/17	OPERATIONS MANAGEMENT*	M	1/2	10	
096090	ING-IND/17	INDUSTRIAL TECHNOLOGIES*	M	1/2	10	
096076	ING-IND/35	LEADERSHIP & INNOVATION	M	2	10	

DOUBLE DEGREE – THIRD YEAR

Code	SSD	Course title	Type	Sem	ECTS	ECTS group
		MASTER THESIS CLASS – MBE_EC		1/2	12	12
		INTERSHIP – MBE		1/2	5	5

Code	SSD	Course title	Type	Sem	ECTS	ECTS group
096078	ING-IND/35	ACCOUNTING, FINANCE & CONTROL (1)	M	1	10	10
096080	ING-IND/35	STRATEGY & MARKETING	M	1	10	
096088	ING-IND/17	OPERATIONS MANAGEMENT*	M	1/2	10	
096090	ING-IND/17	INDUSTRIAL TECHNOLOGIES*	M	1/2	10	
096076	ING-IND/35	LEADERSHIP & INNOVATION	M	2	10	

Code	SSD	Course title	Type	Sem	ECTS	ECTS group
097403	ING-IND/17	INDUSTRIAL MANAGEMENT LAB AND TOOLBOX		1/2	15	15
097319	ING-IND/17	ASSET LIFE CYCLE MANAGEMENT		1	10	10
097320	ING-IND/17	INDUSTRIAL PROJECT MANAGEMENT A		1	10	

DOUBLE DEGREE - IMPORTANT RULES, DEADLINES AND DOCUMENTS



RULES: Students applying to the Double Degree may apply for ASP (Alta Scuola Politecnica), the Erasmus + and non-EU international mobility programmes. However, if students are selected for both programmes, they must withdraw from one of them as per the relevant procedures and timeframes.

DEADLINES: Each year, the call for applications will follow this timeline:

1. Presentation of candidate applications in November;
2. Selection process and interviews in November;
3. Publication of the final results and formal acceptance in December.

DOCUMENTS REQUIRED:

- A motivation letter where the candidate describes the reasons for the application
- Academic CV of the Bachelor degree
- Personal CV outlining skills and extra-bachelor experiences
- An extended abstract of the final thesis. This manuscript must not exceed 5 pages

An evaluation committee, appointed by the School and composed by professors of the two Master of Science programmes, will select the applicants.

REFERENCE CONTACTS



Programme of Study Coordinator

- Gianandrea Ciaramella: *andrea.ciaramella@polimi.it*

Vice Coordinator

- Andrea Caragliu: *andrea.caragliu@polimi.it*

Student representative (Rappresentante degli Studenti)

- Valentino Cominelli: *valentino.cominelli@mail.polimi.it*



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THANKS

CONTACTS:

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www.auc.polimi.it

Campus Lecco
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Campus Mantova
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Campus Piacenza
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