SPECIALIZING MASTER IN

DESIGN FOR ARCHITECTURE

XII EDITION — NOVEMBER 2023

INDUSTRIAL DESIGN FOR ARCHITECTURE
SPECIALIZING MASTER OF POLITECNICO DI MILANO MANAGED BY POLI.DESIGN

Future designers, architects and engineers will face the great challenges of the **ever-changing design and building sector** at local and global level, in terms of **competition, development and modernization.**

They shall be able to develop **new ideas in the field of real estate,** by designing solutions that embed **advanced building components** and display **innovative layout designs**. In particular, the field of interest concernes **temporary buildings** and events, **reconversion of buildings** and **building components design**.

In this perspective, the Specializing Master in Industrial Design for Architecture aims to:

• Combine **multidisciplinary competences** to create advanced curricula;

• **Involve companies and professionals** to make the educational experience **as practical as possible;**

• **Refer to Italian cultural and economic assets** to enrich **design competences;**

• Teach how to develop **highly innovative concepts** based on **design briefs given by real companies;**

• Offer a **multicultural environment** to enhance the understanding of global issues.

If you are a designer who wishes to broaden his/her competence toward the building field, an architect who wishes to enrich his/her profile with design competences, or an engineer who wants to widen his/her field of interest, this is the Specializing Master programme for you!

DIDACTICS

OBJECTIVES

The ID4A Specializing Master educational aim is to train professionals skilful at developing high quality projects in the field that ranges over the architectural layout and the efficiency of the building components.

The Specializing Master has also the objective of completing the training of designers, extending their expertise and problem solving skills with the culture and tools typical of Industrial Design. This aim is sought through an educational course that integrates theoretical knowledge with design studios, vocational activities such as visits to companies and practices and meeting with professionals, and the mandatory internship in architecture and design practices or companies of the building sector.

JOB DESCRIPTION

The Specializing Master aims at answering to the **ever-changing job market**, that demands professionals able to work within contexts where **multidisciplinary skills** are useful and appreciated. The Specializing Master ID4A trains designers able to operate on different canvas and to tackle the challenges of the integrated design into diverse **national and international realities of the building sector.**

FINAL ASSESSMENT

Politecnico di Milano Specializing Master Diploma in "Industrial Design for Architecture". The Specializing Master grants 60 CFU, equivalent to 60 ECTS.

DIDACTIC COURSE

The Specializing Master has been set up to bring together expertise from two sectors of excellence in Italy: design and the production of building components.

It enables students to combine product aesthetics and functionality with production efficiency in industrial and installation terms by offering them the opportunity to acquire skills specific to Industrial Design based on Italian design/production quality and applicable to the international market, which are fundamental to dealing with the evolution of the sector.

The Course of study consists of up-front lessons, talks by experts from the various professional sectors, design studio in collaboration with Italian companies, guided visits to partner companies and participation in events and fairs proper to the sector. The program will end with a final design studio and an internship in an design or Arctehicture practice or company of the building sector.

SUBJECT CONTENT

The program includes three formative areas dealing with different aspects of Industrial Design:

• **Design Culture:** history and evolution of design, with special reference to aesthetic developments and to the ever closer relationship that has been developing over the years between product and build up space.

• **Design Technology:** study of the different technology, materials and tools needed in conceiving and realizing products that combine in a built up environment.

• **Design Strategy:** study of new construction processes, design innovation management and the introduction of design in the corporate strategies of companies in the sector.

A fourth area will be added to these: **Design Studio,** which will include practical work in design on various design themes such as:

• designing finished built-in products, in other words as integratable building components;

• designing electronic consumer products and space saving products that are highly intergratable with building manufacturing;

• designing serial construction products, e.g. for temporary structures and modular building solutions.

Such tasks may be individual or in teams and may envisage the participation of a leading companies in the sector of reference. The assessment achieved will constitute the basis for final marking.
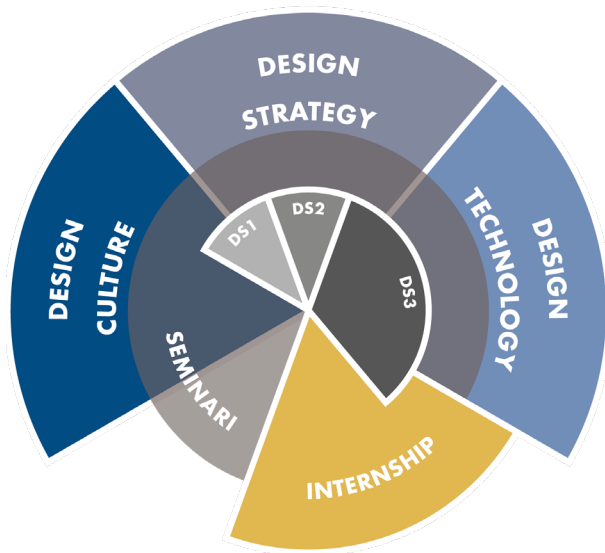
DURATION

The Specializing Master lasts one year for a total of 480 hours. The Specializing Master schedule includes: lectures (theoretical lessons and practical exercises, guided tours, meetings with professionals) and design studio.
During periods in which design studio are held, some days will be let free for individual work to allow students to develop their projects.

COURSE OF STUDIES

The course is divided into 11 thematic modules plus a design module and an internship reaching a total of 60 credits. The thematic modules are:

1 - History of Design and Architecture: general overview on the historical evolution of industrial design, within which it is highlighted the relationship among man-object-space. The interpretation is, in fact, the investigation of the relationship between the design of built space and the design of the products contained, integrated or anyway related therein.

To this regard will be the theme of language and craft production, proto industrial and industrial.

2 - Aesthetics, Semiotics for Design: analysis of the major languages and figurative archetypes that are historically defined and are repository of a heritage of recognizable signs. Training of the skill to recognize these languages and to analyze them so to identify their distinctive features.

3 - Design and the Contemporaneity: acquisition of the framework of knowledge that is necessary to confront with the language of Contemporaneity even during the designing stage. Design is the discipline of Contemporaneity: the critical understanding of the variables relating to the design of new industrial products – even those included in the universe of products for the architecture -, implies a commitment to evolve the to cultural and interpretive skills, which make intelligible that specific meaning of the discipline.

4 - Design and Innovation: acquisition of knowledge concerning the concept of innovation in the field of design through lectures, exercises and guided tours. The theme of innovation is explored and expanded from two different perspectives: the design and management, with specialized educational contributions.

5 - Design Strategy: acquisition of the skill to implement the process of design integration with the organization and strategy of firms: the process of new products development and the role of design in that process; the innovation process of the contribution of design to the development of an innovative product.

6 - Materials Technology: the main families of materials that are applied in industrial production will be analyzed as for: their properties, the potential gained during the transformation processes, the levels of compatibility with other materials, the possibilities of connection and assembly, the strength and durability of building elements. It will provided the information necessary to understand the relationships between the industrial products with the materials that
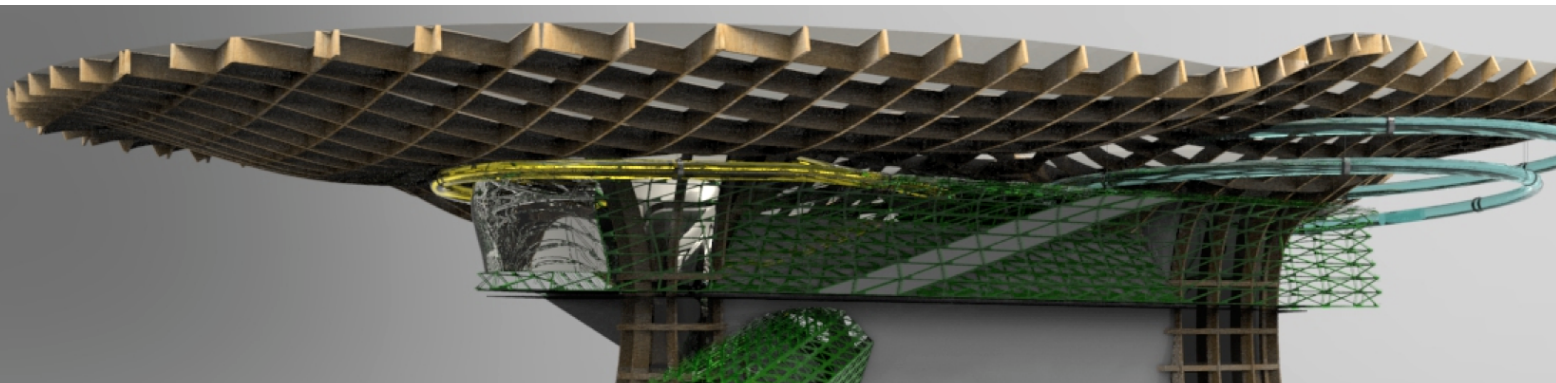
constitute them. Also the tools for the selection of materials, such as the Cambridge Engineering Selector Design version Consideration, will be shown and provided.

7 - Manufacturing Processes for Design for Architecture: gaining the ability to understand and manage the technical, technological and economic considerations related to production processes and logistics flows of industrial products.

8 - Technology of the built environment: acquisition of knowledge on the repertoire of technical elements necessary to identify and design products compatible and integrated to buildings. Acquisition of the ability to design of building components for interiors (interior partitions, metal, plants, decorative elements) and exterior (external vertical closures and their finishes: curtain walls, skylights, natural and artificial stone materials) starting from their function in the building up to the constraint of implementation and cost.

9 - Seminars: meeting with teachers and professionals coming from the business world. The seminars will be focused on the relationship between Design and Architecture and the evolving role of design in the innovation of buildings.

10 - Design Studio: design activities like workshops will be divided into three design studios. The theme of the design studios will be defined with companies that produce industrial products for the built environment. Also the studios will tackle themes of increasing complexity so to gradually develop increasing design skills.

11 - Internship: a training period will be attended at design or architecture professional practices or companies of the building sector.

DIDACTIC ORGANIZATION
- Hours lectures: 288
- Hours design studio: 192
- Hours of internship: 480
- Individual work: 540
- Total hours: 1500

All the lessons and workshops will be held in English.

STUDENT OBLIGATIONS
Attendance: a maximum of 25% absenteeism is consented.

TARGET STUDENTS
The ID4A Specializing Master program is intended for graduates in Industrial Design, Engineering and Architecture who wish to extend their education and gain skills in a specialized project area.

ADMISSION REQUIREMENTS
The ID4A Specializing Master is intended for graduates in Industrial Design, Architecture and Engineering, or for those who hold an equivalent diploma from outside Italy.
A good knowledge of English is a fundamental requirement.
Maximum number of places available: 20 students.

ADMISSION PROCEDURE

Admission to the Specializing Master will be subject to the verification of qualifications and a selection procedure based on the assessment of: curriculum vitae, portfolio, letter of motivation, reference letter and a written test. The test is in English and aims at evaluating the candidate background and competences. The test is on-line and it will be set during a day and time agreed on with the Training Office. Candidates should send their CV, in English, together with the completed application form to formazione@polidesign. net. The test will be arranged subsequently.

COST

12.000 euro
V.A.T. free according to Art. 10 Dpr 633/72
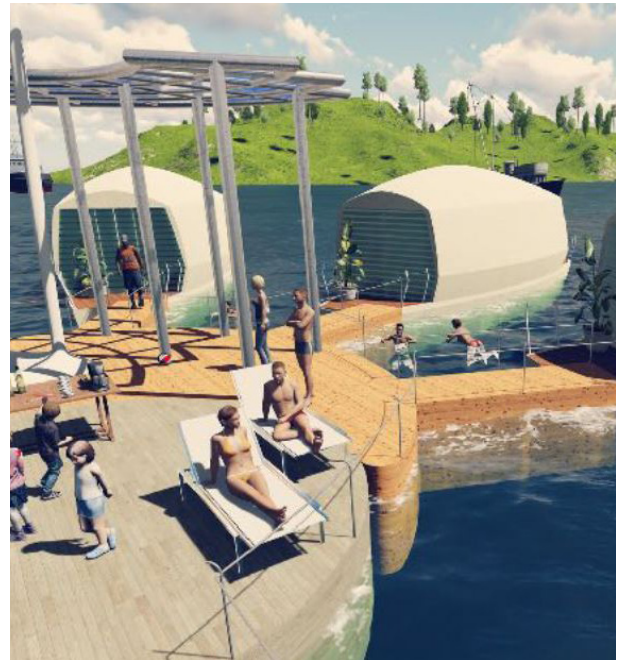
FACULTY

SCIENTIFIC MANAGEMENT
Director: Matteo O. Ingaramo
C.E.O. of POLI.design, Associate professor, Politecnico di Milano

COORDINATION
Scientific and educational coordinator: Silvia Maria Gramegna
Researcher at School of Design, Politecnico di Milano

SPECIALIZING MASTER BOARD
Matteo Oreste Ingaramo, Alessandro Biamonti, Silvia Deborah Ferraris, Lucia Rosa Elena Rampino, Silvia Maria Gramegna, Michele De Lucchi, Francesco Zurlo, prof. Sergio Danese of 21 Architettura e prof. Aldo Cingolani of Bertone Design.

SENIOR MEMBER OF THE FACULTY (EDITION I - EDITION IX)
Francesco Trabucco,
Emeritus professor, Politecnico di Milano

SPECIALIZING MASTER TEACHING STAFF
The faculty consists of university teachers, professionals from the sector and representatives of companies involved in the Specializing Master who will take part in seminars.

TO MENTION A FEW:
Alberto Cigada, Full professor, Politecnico di Milano
Aldo Cingolani, Bertone Design CEO
Sergio Danese, Architect, 21 Architettura
Barbara Del Curto, Associate professor, Politecnico di Milano
Silvia Ferraris, Assistant professor, Politecnico di Milano
Claudio Germak, Full professor, Politecnico di Torino
Matteo Ingaramo, Director of the POLI.design
Fulvio Irace, Full professor, Politecnico di Milano
Ingrid Paoletti, Associate professor, Politecnico di Milano
Lucia Rampino, Associate professor, Politecnico di Milano
Federico Vercellone, Full professor, Università degli Studi di Torino
Francesco Zurlo, Associate professor, Politecnico di Milano

ORGANIZERS:
The ID4A - Industrial Design for Architecture Specializing Master, unique of its kind, has been organized by POLI.design.

POLI.DESIGN

POLI.design operates in the field of design acting as an interface between universities, companies, and professional organizations, institutions and bodies.
It develops training programmes for young graduates and professionals, as well as training programmes for companies that are closely focussed on innovation. It operates from the perspective of internationalisation, establishing partnerships of purpose with universities, schools, bodies, institutions, enterprises, and companies on a case by case basis. Together with the School of Design and the Department of Design, it forms the Politecnico di Milano Design System, which is a pool of resources, skills, facilities, and laboratories that is among the most important in the world.

POLITECNICO
MILANO 1863

In Italy the term "Politecnico" means a state university consisting only of study programmes in Engineering, Architecture and Design.

With approximately 40,000 students, Politecnico di Milano is the Italian largest university for Engineering, Architecture and Industrial Design and it is ranked as one of the most outstanding European universities in these fields. The university has seven campuses located in Milan and in other nearby Italian cities. It is organised in 12 Departments, devoted to research and in 4 Schools, devoted to education.

SPONSORS OF PREVIOUS EDITIONS:

ABET LAMINATI

Elettricità Evoluta dal 1904 · ave

STONE ITALIANA

gecoglass

MICHELMAN
YOUR COMPETITIVE EDGE.®

sikkens

YTONG®

KNOW MORE

POLI.design
Training Office
Via Don Giovanni Verità 25, Milano
Tel. +39 02 2399 5911

Information
hello@polidesign.net

https://www.polidesign.net/en/formazione/interior-
design-and-architecture/master--industrial-design-for-
architecture/