istitutomarangoni
enhancing talent since 1935

Design Innovation for Emerging Technologies

DESIGN INNOVATION

COURSE TYPE

Bachelor's Degree

AFAM / 180 CFA equivalent to 180 ECTS credits

Recognized by the Italian Ministry of University and Research.

OVERVIEW

This three year bachelor's degree course is designed for students who want to work at the **intersection of design, science and advanced technology**. The programme focuses on how new tools, materials and systems can shape the products and experiences of the near future. Students explore **artificial intelligence**, **sensors**, **interactive systems**, **bio based materials**, **3D printing**, **immersive environments** and **digital fabrication**, learning how to use these technologies to build meaningful and human centered solutions.

The course moves from **scenario building** and **speculative thinking** to hands on **prototyping**, allowing students to imagine future contexts and then test ideas through working demos. By the end, students can design products and systems that **anticipate change**, turning emerging technologies into practical, expressive and forward-looking design outcomes suited for evolving industries.

The Design Innovation for Emerging Technologies course prepares participants to face the challenges and seize the opportunities of an ever-evolving digital world. Through an interdisciplinary and hands-on approach, the course develops **advanced skills** at the intersection of design, technology, and innovation.

After the course, students can pursue careers as:

- AR/VR EXPERIENCE DESIGNER
- AI INTERACTION DESIGNER
- CREATIVE TECHNOLOGIST
- DIGITAL ASSET CREATOR
- DIGITAL TRANSFORMATION SPECIALIST

WHY MILAN?

As a global capital of design, luxury and innovation, the City of Milan offers privileged access to **leading brands**, **design studios**, **exhibitions**, **trade fairs** and **industry events**. The city becomes an extended classroom where students can observe and interact with excellence in craftsmanship, hospitality and contemporary living.

KEY OUTCOMES

Upon completion of the course, students will have developed an integrated approach to design that bridges material experimentation and digital innovation, gaining the skills to operate confidently across physical and virtual dimensions.

— Apply both analog and digital techniques to develop original design concepts, combining hands on material exploration with emerging technologies to foster innovation rooted in sensory experience and craftsmanship.

— Integrate tactile experimentation with advanced digital tools to generate hybrid visual and spatial outcomes, demonstrating fluency in translating ideas between physical artifacts and virtual environments.

— Demonstrate a critical understanding of design principles and their reinterpretation within contemporary digital contexts, analyzing how technology reshapes aesthetics, creative processes and modes of communication.

— Produce coherent, cross media design projects that express a unified visual and conceptual language, seamlessly connecting physical and digital environments into meaningful hybrid experiences.

INDUSTRY COLLABORATIONS

Thanks to Istituto Marangoni's **strong ties with leading luxury companies** and its diverse international student community, Istituto Marangoni Milano offers a unique methodology that allows students to work on projects under the supervision of the most prestigious fashion and beauty brands, gaining valuable global perspectives.

FACULTY

The Faculty at Istituto Marangoni is recognised internationally for its academic excellence and strong Industry connections. Lecturers and teachers are established professionals who bring real world expertise into the classroom, offering students direct insight into contemporary practices, emerging trends, and the dynamics of the global fashion, design, and luxury industries.

PLAN OF STUDY

	SUBJECT	DESCRIPTION	ECTS
YEAR 01	**ELEMENTS OF COMPUTER SCIENCE FOR DESIGN**	This subject introduces the fundamental principles of computer science as applied to design practice, focusing on computational thinking, logic and digital systems.	**8**
	HISTORY OF ARTS AND TECHNIQUES	This subject explores the evolution of computational creativity from early computing to today's generative design. It examines how algorithms and digital tools transformed creative processes. Students study milestones from rule-based systems to AI, key generative art movements, and computational aesthetics. The course highlights how digital methods expand complexity and customization in design.	**6**
	PSYCHOLOGY OF PERCEPTION	This subject explores human perception and cognition and how they influence design. It covers visual perception, sensory interaction, and their role in shaping usability and experience in physical and digital products. Students also study emotional design, affective computing, cognitive biases, and visual illusions to apply perceptual psychology in guiding attention and behaviour.	**6**
	INTEGRATED PRODUCT DESIGN	This subject introduces an integrated approach to product design, combining creative development, technical considerations and strategic thinking.	**4**
	MULTIMEDIA LANGUAGES AND APPLICATIONS	This course introduces essential tools and techniques in digital arts and multimedia. Using software like Adobe Suite, Blender, Cinema 4D, and Unreal Engine, students gain skills in design, animation, 3D modeling, and interactive media. It also covers AI tools for creating and managing text, images, video, audio, and interactive content.	**8**
	BASIC DESIGN	This course connects Bruno Munari's design philosophy with digital innovation, blending analog and digital practice. Students explore form, space, and material through hands-on work and advanced digital tools. Students learn to merge physical and virtual elements, developing a design sensibility rooted in materiality and driven by technology for hybrid creative expression.	**6**
	DESIGN METHODS	This subject teaches students to design products and services using advanced technologies such as AI tools and generative methods to create mood boards, support ideation, and improve concepts. The course combines design thinking with digital workflows for iterative development and clear communication. Students learn to merge technology and human-centered design in contemporary product/interior/immersive creation.	**10**
	TECHNIQUES AND LANGUAGES OF REPRESENTATION	This course teaches students to communicate design ideas visually through traditional and modern techniques. Using Adobe Creative Suite and generative AI, they build visual narratives for concept development, research, and storytelling. Focus areas include typography, layout, compositing, image generation, and consistent visual systems across media.	**4**
	FOREIGN LANGUAGE	Study of a Foreign Language.	**4**
	FREE STUDY ACTIVITIES	Independent study activities.	**4**

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PLAN OF STUDY

	SUBJECT	DESCRIPTION	ECTS
YEAR 02	**MULTIMEDIA**	Study of expressive languages in digital and social media, understanding how each platform shapes content formats, style and potential.	**8**
	HISTORY AND CULTURE OF VISUAL COMMUNICATION	This subject explores the evolution of visual communication from historical to contemporary contexts, analyzing how images, symbols and media reflect cultural, social and technological change.	**6**
	INTERFACE DESIGN	Creation of an APP.	**5**
	DIGITAL PRODUCTION	Storytelling, shooting, editing process.	**10**
	PERCEPTION SCIENCES AND LANGUAGES	This subject examines how humans perceive visual, auditory and sensory information, and how these processes influence communication and design choices.	**6**
	PROTOTYPING	Prototyping introduces methods for transforming ideas into tangible and testable models. Students learn to create physical and digital prototypes to explore concepts, validate design solutions and refine projects through experimentation and iteration.	**4**
	BRAND COMMUNICATION	This subject explores how brands communicate values, identity and positioning through visual and multimedia channels.	**6**
	MULTIMEDIA PLANNING	It focuses on the strategic organization of multimedia projects, from concept development to execution.	**10**
	FREE STUDY ACTIVITIES	Independent study activities.	**5**
YEAR 03	**SOCIOLOGY AND ANTHROPOLOGY OF COMMUNICATION**	This subject explores communication as a social and cultural process, analyzing how meaning, values and behaviors are constructed and mediated through media, technology and design.	**6**
	INNOVATION TECHNOLOGIES	This subject explores emerging and enabling technologies that are transforming contemporary design practices.	**10**
	RENDERING	Rendering focuses on advanced digital visualisation techniques used to represent design concepts.	**8**
	MULTIMEDIA DESIGN	This subject examines multimedia design as a key language of contemporary communication and innovation.	**10**
	MARKETING	Exploration of market dynamics through research, segmentation, and creation of brand personas to understand audiences and shape effective actions.	**5**
	SOUND DESIGN	Sound Design.	**4**
	INTERNSHIP	Internship.	**9**
	DISSERTATION	Final written thesis.	**8**