

2023暑期前沿学科交流项目 米兰理工大学工业创新与可持续设计

Industrial Design and Innovation
Politecnico di Milano
2023 Summer

上海安与教育科技有限公司



米兰理工大学（Politecnico di Milano；简称Polimi）创建于1863年，坐落于时尚之都、设计之都意大利米兰，仅专注于三大领域：工程技术、设计和建筑学，不设置综合院校的文、法、医等学院。米理是欧洲顶尖工科院校IDEA联盟成员，也是米理-TUM-帝国理工学院欧洲人才学会联盟、欧洲设计高校联盟。在设计领域，米兰理工大学享有全球的影响力，2022QS世界大学学科排名中，米兰理工大学在“艺术与设计”学科排名世界第5。

POLI.design是米兰理工大学设计专业的研究生院，该机构旨在支持并完善设计学院的学科路径，并提供专业的学科培训，帮助培养不同工作领域的设计师人才。与学院的合作的顶级珠宝品牌包括宝格丽(Bvlgari)、布契拉提(Buccellati)、宝曼兰朵(Pamellato)和Damiani, Vhernier.

Poli Design

Together with the School of Design of the Politecnico di Milano and the Department of Design, POLI.design forms the Design System of the Politecnico, an aggregate of resources, skills, structures, and laboratories, among the most important in the world, aiming at professional training, which combines lectures, seminars and workshops, and an effective insertion in the many areas of work in which the designer operates today.

Design is a driving force behind the growth that can guide individual and collective choices through cultural trends, guiding tastes, behaviors, lifestyles, and consumption styles. It has numerous and highly varied applications: from research and applications connected with the introduction of new technologies to designing new products and services

POLI.design provides a unique experience for students in Milan, where design lives and transforms itself every day and puts the student in constant contact with the international design culture.

Politecnico di Milano - QS Ranking 2023 in Art&Design category: 1st in Italy, 4th in Europe, 8th in the World. It includes 7 training areas, 5 Innovation Paths, 80 training projects with more than 25 Masters, and over 25 Advanced Training Courses.



POLITECNICO
MILANO 1863

Industrial Design and Innovation 工业创新与可持续设计

米兰理工学院的工业设计项目，结合高科技创新材料与工程产品，为学生提供高规格的课程。帮助学生了解当代设计师和产品设计专家的前沿技术和突破创新。以坚实的欧洲设计传统为起点，辅以创造力和工艺方法。旨在塑造出全能设计师及管理人才，学习一个新产品如何从最初的概念走到制造阶段的整个开发过程。培养专业人员，使他们的创造能力与技术专长和对产品的工业可行性认知相匹配，通过该课程为学生提供未来职业发展中需要的跨学科技能。

Politecnico's technical and design culture, placed in Design 8th place in the world, is integrated with the high technology and innovation in the field of production and innovative materials. It is a high-profile course placing the students in line with contemporary technology and innovation, starting from a solid tradition on creativity and method.

This course can mold capable designers who can manage the entire development of a new product from the initial concept to the manufacturing stage. The aim is to train students whose creative capacity is matched by technical expertise and awareness in a product's industrial feasibility. The course establishes a set of multidisciplinary skills called upon throughout the course of training.

Industrial Design and Innovation

工业创新与可持续设计

Course Highlights 项目亮点

- Interdisciplinary Approach: students are encouraged to explore fields such as engineering, architecture, and technology alongside design to understand the practical and technical aspects of design and create innovative solutions
- Strong partnerships with leading design firms, allowing students to work on real-world projects and gain valuable industry experience, such as Whirlpool Europe, 3M, Studio Volpi, Zinc, Design Group Italia, Toys Toys
- The course has a strong focus on sustainability and encourages students to design products that are environmentally friendly and socially responsible. Politecnico di Milano is at the forefront of this movement
- State-of-the-art design studios, workshops, and laboratories, which provides students with access to the latest design tools and technologies
- 米兰理工大学在设计领域排名世界前八，欧洲前四。在米兰理工大学，学生可以体验到历史传统文化底蕴与高科技制造行业的绝妙结合。
- 项目依托由米兰理工大学主导的可持续学习网络LeNS（The Learning Network on Sustainability），探寻设计中产品与服务系统开发的可持续性以及环境友好的绿色设计。
- 米兰理工大学设计学院拥有行业顶尖的合作伙伴，使学生能够参与实际项目并获得宝贵的行业经验。项目合作伙伴包括Whirlpool Europe, 3M, Studio Volpi, Zinc, Design Group Italia, Toys Toys等。
- 在设计之都米兰学习世界顶尖的工业设计理念，欣赏米兰设计周最先锋的设计作品。学生将有机会参访米兰ADI设计博物馆。

Teaching Faculty 项目教职人员



Francesco Zurlo

- Dean of the School of Design of the Politecnico di Milano
- research interests are concentrated in strategic, systematic and creative research through design, focusing to the ecological impact of business innovations and human flourishing
- Founder and Director of Design+Strategies research group
- member of the scientific committee of the Observatory of Design Thinking for Business of the School of Management of Politecnico di Milano, and of ADI Index (the most important organization for assessing the best design in Italy).
- author of numerous international publications about strategic design, design driven innovation, design for organization
- 米兰理工大学设计学院院长
- 设计+战略研究小组创始人兼总监
- 研究方向集中在通过设计进行战略、系统和创造性研究，重点关注商业创新和人类繁荣的生态影响
- 米兰理工大学管理学院商业设计思维观察委员会成员
- 战略设计、设计驱动创新，组织设计等知名国际出版物作者



Matteo O. Ingaramo

- professor in Design at the Milan Polytechnic
- PhD in Industrial Design at Politecnico di Milano
- he is teaching “Design for Product Engineering and Innovation”, “Premium design management”, “Design for Architecture”
- coordinator of several research projects concerning design-driven innovation, for IDEA (InnovationDESIGN Action) research group at Design Department
- member of the Board of Directors of Fondazione Peano, Vice President of the GDIO Global Design Industry Organization, Chairman of POLI.design
- 米兰理工学院设计学教授
- 在米兰理工大学获得工业设计博士学位
- 教授“产品工程和创新设计”、“高级设计管理”、“建筑设计”
- 在设计系IDEA（创新设计行动）研究小组中担任多个关于设计驱动创新的研究项目的协调人
- 佩诺基金会董事会成员，GDIO全球设计行业组织副主席，POLI.design主席



Michele Melazzini

- Research Fellow at the Politecnico di Milano
- the research activity focuses on design's role in the organization and product design, built his experience in applying and developing design practices to support cultural transformation and innovation processes
- collaborates on international research projects (Horizon 2020, Interreg, Erasmus+) that deal with Creative Industries, Design Thinking processes applied to SMEs, and Entrepreneurship
- 米兰理工大学研究员
- 研究方向侧重于设计在组织和产品设计中的作用，结合其在应用和开发设计实践以支持文化转型和创新过程方面的经验
- 合作开展国际研究项目（地平线2020、Interreg，伊拉斯谟+），涉及创意产业，应用于中小企业的设计思维过程和创业精神

Academic Syllabus

- **Product communication & design**

Student review the customization techniques, while using 2D Software, and understand the connection between the pack and the product, principles of branding. This module includes Visual Cognitive Exercises.

- **Sustainable Packaging**

Overview of packaging and the goal of sustainability, students assessing the environmental impact of packaging and Life cycle packaging design. They can acquire the knowledge of how to select tools for sustainable packaging materials and processes, understand the packaging end of life processes and regulations: recyclability, biodegradability, composability.

- **Materials and technologies for the innovation of the Industrial Product**

Students can acquire the knowledge and tools that enable designers to understand how manufactured products relate to the materials they are made of.



Academic Syllabus

- **Enterprise and Innovation**

Acquire the main skills needed to organize a product portfolio and to organize the innovation process so as to integrate all the corporate skills involved, as well as some know-how for setting up, managing, and verifying the individual development projects for a new product.

- **Workshop 1: Product Concept and Layout**

Students identify usability limitations in specific product categories. Using this analysis of state-of-the-art products, students are expected to design a new product, including layout and determining its main components.

- **Product-development Laboratory: Design and executive development of industrial product**

The exercise consists in the design of mass consumption products of medium complexity starting from removal and relief of an existing product. Students analyze and understand the starting material. Product improvement focuses on formal and usability aspects of the product, without neglecting the industrial feasibility aspects and methods of assembly.



PoliFactory



Polifactory is one of the centers recognized by the European Commission in the Advance Technology for Industries (ATI) project. Polifactory is a multidisciplinary research space and the makerspace of the Politecnico di Milano. Polifactory promotes the pre-incubation of talented students interested in rethinking product-service systems and develops research and experimentation activities together with companies, organizations and institutions to explore the relationship between design and change in production models, tackling various challenges related to the integration of design, manufacturing and innovative technologies. It is continuously following the technological innovations, with the possibility to explore the use and application of new tools in the design and digital manufacturing processes.

Polifactory是欧盟委员会在工业先进技术（ATI）项目中认可的中心之一。Polifactory是一个多学科的研究空间，也是米兰理工大学的创客空间。Polifactory对有兴趣思考产品服务系统的优秀学生予以支持与孵化，并与公司、组织和机构一起开展研究和实验活动，注重探索设计与生产模式变化之间的关系，积极应对与设计、制造和创新技术集成相关的各种挑战。在跟踪技术创新领域不断探索，并注重探索新工具在设计和数字制造过程中的使用和应用。



ADI Design Museum

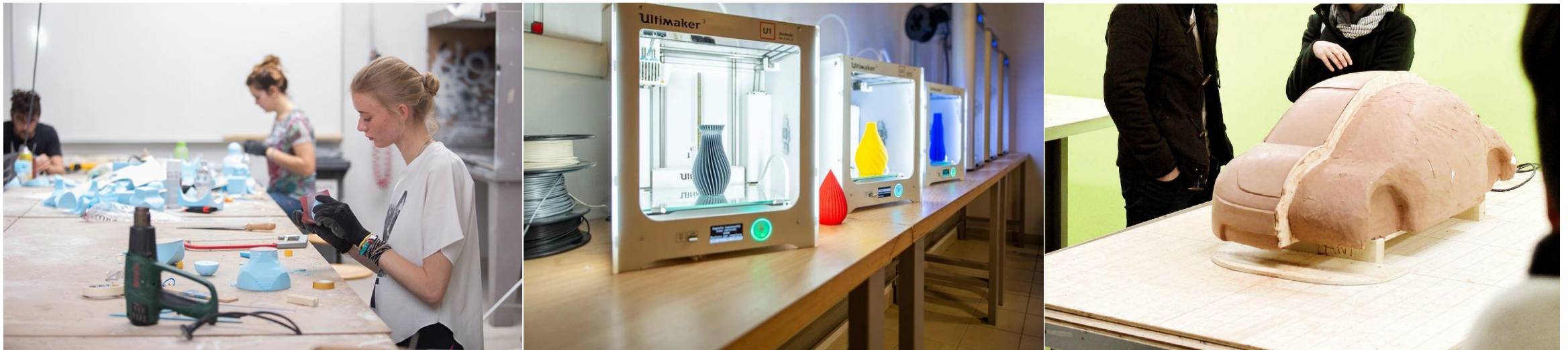
The ADI Design Museum is managed by the ADI Compasso d'Oro Collection Foundation, established by ADI – the Association for Industrial Design to safeguard and enhance the artifacts built up over the decades of the award. This is a national cultural legacy, recognized by the Ministry of Cultural Heritage as “of exceptional artistic and historical interest”.

ADI设计博物馆由ADI Compasso d'Oro收藏基金会管理，该基金会由ADI - 工业设计协会（ADI）建立，旨在保护和增强数十年来获奖期间积累的文物。这是文化遗产部认定为“具有特殊艺术和历史价值”的国家文化遗产。

The Prototype Laboratory

The Prototype Laboratory specializes in the production of models and prototypes for design and industry. It combines traditional craftsmanship with the most up-to-date prototyping technologies. Particular attention is paid to feasibility and production checks in order to optimize project times and costs by working with all existing materials on the market.

Prototype实验室专门生产用于设计和工业的模型与原型。它将传统工艺与最新的原型制作技术相结合。其对于可行性和生产检查尤其重视，以便通过使用市场上的所有现有材料来优化项目时间和成本。



项目模块结构 Program Structure

+核心课程

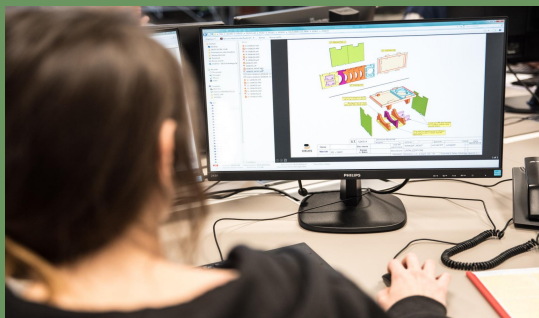
围绕工业创新与可持续设计这一交叉学科课题的经典理论、基础知识、应用实践案例等内容；包括线下实验室参访与实践等项目，共计40课时。

核心课程

由米兰理工大学世界顶尖水平教授全程指导授课，学生将学习行业领域的最新研究成果和动态。

设计作品实践指导

学生将在核心实验室自主设计作品，并在教授和资深的设计专家指导下完成自己的作品。



交叉学科前沿应用

项目聚焦设计领域的学科前沿应用，横跨艺术、会展策划等产业应用，智触行业前沿。

官方证书、推荐信

学生在完成项目后，将获得米兰理工大学官方签发的项目证书，优秀学生将获得教授的推荐信。

+专题讲座

将邀请行业内顶尖设计师与教授，分享当下热门设计领域前沿行业信息



+Design Studio

参观各类实验室与机构，跟随行业大咖深度探访与学习，获得一手的行业资讯和行业动态。



+文化体验

学生将参观米兰时装周主会场、米兰设计展主会场和国际知名奢侈品的基金会等时尚设计领域的顶级秀场，深入感受国际核心时尚元素。



项目日程 Program Schedule

项目计划时间为2023年7月24日-8月6日，共计两周。其中课时安排为40小时。项目具体日期视航班计划、签证进度等可能调整，但是总时长、总课时数保持不变。

参考行程*								
	Time	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Schedule Week 1	08:00-09:00	抵达米兰 & 入住学生宿舍	早餐	早餐	早餐	早餐	企业机构参访	企业机构参访
	09:00-12:00		开学典礼	核心课程	核心课程	核心课程		
	12:00-13:00		午餐	午餐	午餐	午餐		
	13:00-17:00		破冰活动	校园参访	实验室参访	核心课程		
	17:00-18:00		晚餐					
	18:00-20:00		熟悉周边环境&生活用品补给	设计实践	设计实践	机构参访		
	Time	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
Schedule Week 2	08:00-09:00	早餐	早餐	早餐	早餐	项目毕业展示	项目结业仪式 启程回国	到达国内
	09:00-12:00	核心课程	核心课程	核心课程	核心课程			
	12:00-13:00	午餐	午餐	午餐	午餐			
	13:00-17:00	核心课程	核心课程	核心课程	小组研讨课			
	17:00-18:00	晚餐		学院晚餐				
	18:00-20:00	设计实践	文化活动	文化活动	机构参访			

*最终项目日程以实际安排为准，因天气、预约情况等可能会有变动，但不影响各模块学时总数。

项目费用明细

项目费用	费用明细
3950 EUR/人 约合2.95万人民币	包括线下的课程、文化活动、机构探访、住宿、餐饮、当地通勤及接送机、项目服务管理费用、签证服务及保险费用，明细如下。

课程费用	项目课程费用:
	<ul style="list-style-type: none">线下的专业核心课程费用;Workshops费用;教学课件、书籍、资料费用;教学场地相关费用;实验材料使用费用;助教费用。

签证服务及保险	
	<ul style="list-style-type: none">财产损失保险(50万欧元保额);个人境外旅行意外保险(约200万人民币保额);申根签证咨询及协助申请服务。

住宿与活动费用	
1. 食、住、行服务:	3. 生活服务费用:
<ul style="list-style-type: none">每日早餐及部分午餐;住宿费用;接送机送机费用;当地每日通勤交通费用。	<ul style="list-style-type: none">大学区域及房间网络服务;First-Aid 紧急治疗包和支援服务;当地医院医疗服务。
2. 文化实践及参访费用:	4. 项目管理费用:
<ul style="list-style-type: none">全程5个机构探访费用;全程8个文化体验探访费用;Panels组织费用。	<ul style="list-style-type: none">项目方管理费用;外方院校管理费用。

项目申请条件：

- 1.满足学校国际交流派出要求；
- 2.具备设计、艺术专业相关基础课程知识；
- 3.具备较强的英语语言沟通能力，拥有雅思、托福或四六级成绩，无英语成绩的同学需参加英文面试。



项目申请



咨询老师：Cindy