

MASTER IN ENTREPRENEURSHIP AND INNOVATION (LM-77)

Content of the courses

FIRST YEAR
<p>Growth Mindset</p> <p>Module 1: Design Thinking and Prototyping</p> <p>Design Thinking is two decades old now. And in all these years we have understood something. The DT is not the solution to all problems. Why then is it increasingly popular? Communication agencies, personal coaches, big consulting groups why today everyone "does" Design Thinking? And even when the C-levels try to avoid it, perhaps by investing in another evocative name, they always find the same old story: post-it, games, the magic 4 steps taken from a manual written maybe on the other side of the world 20 years ago. Because being creative and innovative is the dream of every company. And when the company can't do it, because it is blocked by a thousand clutches, an automatic innovation distributor is ready at every corner, selling it ready-made at a low price. "Doing" Design Thinking becomes as easy as installing an app. But The DT is not an app to install. It's a new operating system. I will try to show through international case studies and lectures how Design Thinking is the perfect way to face complexity and to bring value to the companies. The competition is high. The rates are lowered. The quality as well. It becomes a war of meaningless terms that feeds on itself.</p> <p>Module 2: Algorithmic thinking Coding</p> <p>This is a programming course particularly focused on coding and on how data are organized and handled by computers. Starting from the very basics of Python programming the students will get to learn the techniques for dealing with data, efficient algorithms, data structures and agent models. The course is strongly focused on practice, consisting in very short theoretical sessions followed by several examples, exercises and assignments. An overview of blockchain technology is introduced for its innovative potentialities as well as an example of advanced programming. This course gives future entrepreneurs and innovation managers a clear idea of how computer algorithms work, a knowledge which can help them better plan company's developments and potential innovations, in particular in the technological sector. Moreover, programming abilities gives access to job opportunities in the software development sector.</p>
<p>Foundations of Entrepreneurship</p> <ul style="list-style-type: none"> • What is entrepreneurship? (new venture creation, SME management, entrepreneurial orientation, entrepreneurial mindset, opportunity recognition, exploration vs. exploitation). • Building Blocks of Entrepreneurship (definitions, general frameworks, differences between Start-Up & Corporate Entrepreneurship, the process of entrepreneurship, forms of entrepreneurship etc.).

- Entrepreneurial Strategy (e.g., personality of corporate entrepreneurs, motivations for entrepreneurial behavior, the intersection between strategy and entrepreneurship, elements and development of an entrepreneurial culture, market entry strategies, innovation strategies, internationalization strategies).
- Growth in business development [phase models of business development, rapid growth as critical development phase of young enterprises, growing pains, growth strategies of young enterprises (internal and external growth, scaling, duplicating and granulating as strategic options, change of strategic options in the growth process, strategic alliances)].
- Entrepreneurial networking/networks
- Entrepreneurial teams
- Business ideas and business models

Economics for Management

Module 1: Business Economics

Basic principles of Business Economics: Industrial Organization and Competitive Strategy. In particular:

- Industrial organization: what, how, and why
- Market structure and market power
- Monopolistic price discrimination: linear pricing; group pricing; nonlinear pricing
- Monopolistic pricing in digital markets
- Competition and differentiation: static games and Cournot competition; oligopolistic price competition and Hotelling competition; dynamic games and Stackelberg competition

Module 1: Innovation Economics

- Introduction to economics of innovation: radical vs incremental innovation and incentives to innovate
- Research and development: policies
- Research and development: effects
- Introduction to history of innovation
- Complement products and network externalities
- Net neutrality
- Platform competition
- Nurturing innovation – inventions, ideas and institutions
- Patents and patent policy
- Standardization
- Asymmetric information and financing innovation
- Diffusion of new technologies
- Innovation and market dynamics
- Artificial intelligence and innovation
- Innovation in the pharmaceutical sector

Statistical Methods for Business Analysis

- Principles of statistical inference: confidence intervals and hypothesis tests
- Association and dependence
- Introduction to statistical learning
- Linear regression
- Logistic regression
- Model selection
- Classification and cluster analysis
- Statistical learning with R

Research Coaching LAB

- A. Conducting research and writing a thesis;
- B. Writing a literature review;
- C. Choosing among alternative research methodologies.

In Module C, quantitative (survey data collection, use of databases, and data analysis) and qualitative research methods are presented.

Network Thinking and Agent-based modeling

- Introduction to complex adaptive systems
- Introduction to networks and network analysis
- Networks descriptors, topologies, configurations
- Systems and agent-based modelling

Entrepreneurial Finance and Venture Capital

- Sources of financing
- Financial Planning
- Firm valuation (DCF and comparable firms, VC method)
- Capital Structure
- Private equity and venture capital market
- Crowd financing,
- Token financing / ICOs, SPACs, IPOs,
- Financing for business plans/Budgeting forecast

Project management

- Planning and Scheduling Strategies
- Interdependencies and Coordination tools
- Pricing and Estimating Tools
- Cost Control
- Project life cycle
- Theory of constraints in project management
- Negotiation Techniques
- Risk Management
- Performance Measurement and Metrics

Social Entrepreneurship

- Distinctive traits of social enterprises
- Social business models
- Social impact
- Launch, management, and grow of social enterprises
- Social problem validation

Innovation Management

- Foundations of strategic management and technological innovation
- Organizational creativity, organizational knowledge and innovation
- Innovation and industry competitiveness
- Innovation and entrepreneurship in different industries
- Types of innovation; S-curve technology
- Standards, modularity, platforms and ecosystems

- Open innovation and collaboration strategies (e.g., innovation across the boundary of the firm, open business models, proprietary technologies vs. shared standards)
- User innovation (e.g., crowdsourcing, crowdfunding).

Service design

- Service Design Definitions
- Human-Centered Design
- Double Diamond design process model
- Design Thinking
- Interaction Design
- User Experience Design
- Co-design
- Methods and Application
- Personas
- Customer Journey Map
- Touchpoints, Scenarios, Stakeholder Map, Value Proposition Canvas,
- User Research, Visualization, Ideation, Prototyping,
- Implementation and Testing.

Marketing B2B and Sales Management

- Significance of B2B Marketing
- Organizational Buying Behavior
- Inter-Organizational Relationships
- Marketing Channels & Supply Chains
- Industrial Networks
- B2B Marketing Planning & Analysis
- B2B Strategies & Implementation
- Business Products
- Business Services
- Value & Pricing
- Marketing Communication
- Personal Selling & Sales Management

Family Business Management

- Introduction to family enterprises: resources and organizational goals
- Conceptual models, types and heterogeneity of family enterprises
- Managing leadership succession in family enterprises
- Innovation and technology management in family enterprises
- Managing agency and trust relationships in the family enterprise
- Professionalization, growth and family business governance
- Noneconomic goals and performance in family enterprises
- Managing family firms' stakeholders for longevity
- Guest lectures from family business leaders, consultants and experts

SECOND YEAR

Startups Law and Industrial Law

- Unfair competition
- Antitrust
- Copyrights
- Intellectual property
- Startups
- Entrepreneurial finance
- Banking and financial contracts

Entrepreneurial Marketing

- Marketing for entrepreneurship
- Marketing of new products
- Demand Forecasting
- Product and positioning
- Entrepreneurial Pricing strategy
- Entrepreneurial Distribution strategy
- Entrepreneurial Communication strategy
- Managing the relationship with customers
- Setting the startup up

Market Research

- Introduction to market research
- The process of market research
- Research design
- Qualitative and quantitative market research
- Problem formulation
- Research question
- Methods of sampling
- Quantitative & qualitative methods of market research
- Data analysis
- Presenting results of market research

People Management

- Psychologically-informed theories of individual behaviour in organisations and how these underpin the management of people, covering topics such as motivation, personality, perception and learning
- Social aspects of the organisation, particularly theories of teamwork, group dynamics and organisational culture, and how these impact on managing people in organisations
- The role and activities of managers in overseeing the organisation, drawing upon theories of leadership, power and politics
- Motivating team members and stakeholders engagement
- Developing emotional intelligence and knowing how to use it within your team
- Performance management, monitoring performance and feedback
- Managing change within your team
- Negotiation skills for reaching agreed positions

- Psychological safety
- Managing High-impact teams

Scaling-up

- From startup to scale-up (from the genesis to the development)
- Strategies, timing and execution
- Resources and skills
- Changing while scaling
- Cash and financial levers

Digital Transformation

- The context and the emerging digital paradigm
- Big data and digital transformation
- Digital transformation for the existing firms: from a threat to an opportunity
- Organizational adaptation to the digital paradigm
- Business model innovation for the digital transformation

Management and Design

- MAD: approach and perspectives.
- Complementarity and incompatibilities between design logic and management logic
- Design Management - Taking Charge of Processes and People
- Managing the Unmanageable.
- State of the art on MAD as a discourse and a field.
- Design approach to strategic management and change management
- Management and design in MNEs and SMEs, from a designer perspective
- Design Thinking: a critical review on historical roots and future perspectives
- MAD Wrap-up – Projects presentation

Project LAB – Startup

- Opportunity evaluation and selection
- Customer validation and Pricing
- Marketing plan
- Finance plan
- Business Model
- Business Plan
- Applying to an accelerator programme

Project LAB – Corporate Innovation

- Open Innovation and corporate accelerator programmes Startups Scouting
- Venture Client Model
- Business Case and Proof of Concept
- Value proposition
- Opportunity validation
- Business Modeling
- Competition and market Analysis
- Reflection on project-based learning experience

