

MANAGERS, ENGINEERS, DESIGNERS,

**TOGETHER, YOU
ARE A FORCE TO BE
RECKONED WITH!**



MSC

INNOVATION, CREATION & ENTREPRENEURSHIP

Developing new business value through Innovation,
Entrepreneurship and multidisciplinary team work.



Accredited by :



A JOINT PROGRAMME COMBINING ENGINEERING, DESIGN AND MANAGEMENT

The Master of Science Innovation, Creation & Entrepreneurship was founded from a partnership between Groupe ESC Troyes (School of Management) and EPF Graduate School of Engineering together with the Science Park Technopole de l'Aube en Champagne and its 60+ Start ups. Accredited by the "Conférence des Grandes Ecoles", this joint programme is open to students with a management, engineering or design background.

This 12/13-month-programme starts with 7 months/two semesters of classes followed by a 5/6-month-internship or personal Business Project Creation.

KEY LEARNING OUTCOMES

of this MSc ICE programme are to develop your abilities to innovate and enhance your entrepreneurial skills.

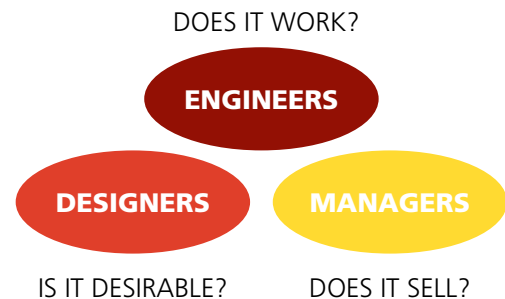
When joining this programme, students will be part of a cross-functional and multicultural team, each to be challenged with a real life customer project. They will develop and bring value to the Team as an Engineer, a Manager or a Designer. Innovation to be efficient needs complementary skills including soft skills. Understanding the value of these complementary skills during the project development stages is a critical key learning outcome of this programme.

100%
OF THE PROGRAMME
IS TAUGHT IN ENGLISH

ENTREPRENEURIAL CULTURE & BUSINESS GAME

Part of the programme aims at providing students with a **solid entrepreneurial culture** through meetings with business owners, networking sessions, lectures, workshops and European Commission lobbies. In the course of their 7 months of studies, they will be faced with several sessions of intensive 3-day-challenges given by startups.

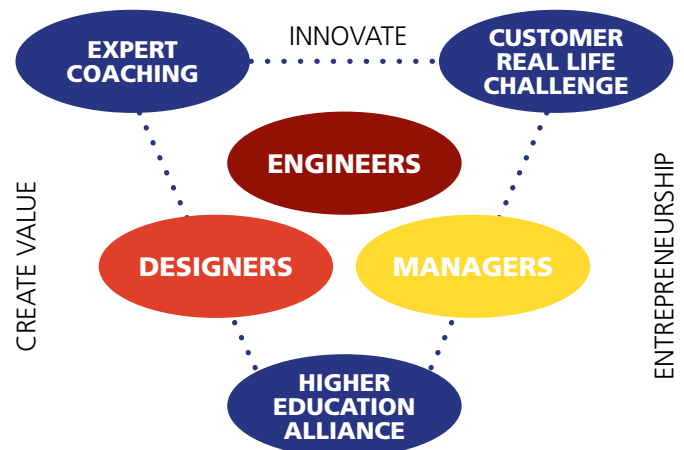
By the end of the second semester, in order to assess their overall skills, students take part in a **Business Game**. For a whole week, they are asked to manage and implement an innovative project within challenging scenarios.



INDIVIDUAL COACHING

Students will have expert mentors assigned to support their project Teams.

Some of the students will have their own projects that they will develop in parallel to the Team main frame project. These students will also have coaching provided by experts from the Incubator Young Entrepreneur Center (YEC) of Technopole de l'Aube en Champagne to support them as individuals. At the end of this programme some students will join the Incubator YEC to create their own business and bring value to the community.



CAREER PROSPECTS

MSc ICE provides tremendous career opportunities in design, management or engineering in all growth sectors.

Graduate students will either be able to work in small and medium-size businesses or large companies in R&D or Project management functions.

TOP RESPONSIBILITIES JOB OPPORTUNITIES:

- > Innovative Project Leaders
- > Entrepreneurship and Innovation Consultant
- > Change/Strategic Management Consultant
- > Head of R&D and Innovation Director
- > Entrepreneur

A FOUR STAGE PROGRAMME

FIRST PERIOD

September - October

November - December

MANAGERIAL COURSES

I - Entrepreneurial Spirit Training	Hours	ECTS	III - Business Development Training	Hours	ECTS
The spirit of entrepreneurship	12	1	Rethinking and designing new business model	12	2
The fine art of failure	12	1	Entrepreneurial finance	15	1
Development Sessions (PPP)			Business plan achievement	12	1
Introduction to fencing			Customer acquisition for new venture	18	2
II - Project Management Training	Hours	ECTS	IV - Business Development Challenge	Hours	ECTS
Entrepreneurial team formation	12	1	Local entrepreneurs provide a comprehensive picture of the objectives assigned to their companies. Students will have to elaborate a business development plan to reach them. Three days format-Small teams of 4 or 5 students	18	3
Design thinking	12	1			
Intellectual property for innovators and entrepreneurs	12	1			
	60	5		75	9

MAIN PROJECT

ENTREPRENEURIAL AND INNOVATIVE PROJECT: STAGE

Each student integrates a pluridisciplinary team (managerial and technological)

PROBLEMATIZATION Approval Stage One	10	3	BUSINESS MODEL Approval Stage Two	10	3
Professional tutoring	8		Professional tutoring	6	
	18	3		16	3

ENGINEERING COURSES

I - Emergence of product & project management	Hours	ECTS	III - Technological engineering & dynamics	Hours	ECTS
Product lifecycle management 1: Requirements	6	1	Product lifecycle management 2: Digital MockUp & Additive Manufacturing	22	3
Product Definition	12	1	Numerical simulation	12	1
Industrial project management	12	2	Ecodesign	12	2
II - Entrepreneurial Culture & Networking	Hours	ECTS	IV - Entrepreneurial Culture & Networking	Hours	ECTS
Conferences (entrepreneurs, experts, business angels,...) - Workshops (incubators) - Hackathon	18	NC	Conferences (entrepreneurs, experts, business angels,...) - Workshops (incubators) - Hackathon	18	NC
	48	4		64	6

THIRD PERIOD

First option: BUSINESS PROJECT CREATION
Business Incubation (Technology Park) - 5 months - 30 ECTS

Hours - MSc ICE First Period	281
Hours - MSc ICE Second Period	202

Total Hours MSc ICE 483

Msc

The development process follows a Stage Gate process with 4 stages and 4 Gate reviews. Specific designed courses support each stage. In between each stage, there is a project review with the customer to validate team added value. Agility and iterative development work using System Engineering, Visualization and High Speed Prototyping, are taught. At the end of the project, Team will have to present a value added business model and innovative prototypes to customers in a final review.

SECOND PERIOD

January - February

March

V - Turnaround Management Training	Hours	ECTS	VII - Business Game	Hours	ECTS
Crisis strategy	18	2	Business Game	30	5
Turnaround Management	12	2			

VI - Turnaround Case Study Challenge	Hours	ECTS	VIII - Make or Break Challenge	Hours	ECTS
Students have to work on a case study dedicated to turnaround management. During the competition, professionals will advise them to reach coherence and consistency. Four days format-Small teams of 4 and 5 students	24	3	Students will randomly pick an entrepreneurial subject and will have to address the issue in a limited time and in a public area. Three days format Individual challenge	18	5
	54	7		48	10

ES GATES EVALUATION (ESC/EPF/TECHNOLOGY PARK)

ers, engineers and designers) to solve a specific problematic

BUSINESS PLAN Approval Approval Stage Three	10	3	IMPLEMENTATION Approval Stage Four	10	3
Professional tutoring	8		Professional tutoring	6	
	18	3		16	3

V - Industrial & commercial responsiveness	Hours	ECTS	VII - System integration	Hours	ECTS
Supply chain	12	2	Product lifecycle management 3: Connected Objects	18	2
Lean manufacturing	6	1			

VI - Entrepreneurial Culture & Networking	Hours	ECTS	VIII - Product Development	Hours	ECTS
Conferences (entrepreneurs, experts, business angels,...) - Workshops (incubators) - Hackathon	18	NC	Students will apply engineering courses to develop a product during the academic year Two days format-Small teams of 5 or 6 students	12	2
	36	3		30	4

PERIOD

Second option: INTERNSHIP
Innovation Oriented Business - 5 months - 30 ECTS

30	ECTS First Period
30	ECTS Second Period
90	Total ECTS MSc ICE



GROUPE ESC TROYES-SCHOOL OF MANAGEMENT

- > **10** programmes on **5** campuses
- > **1 780** students
- > **7 133** alumni
- > **49** nationalities
- > Over **200** partner universities all over the world

EPF GRADUATE SCHOOL OF ENGINEERING

- > **8** programmes on **3** campuses in France
- > **2 000** students
- > **10 000** alumni
- > **15%** of international students
- > **170** partner universities all over the world

SCIENCE PARK TECHNOPOLE DE L'AUBE EN CHAMPAGNE

- > Over a **15**-year-expertise in innovative projects follow-up
- > **66** innovative companies
- > **420** entrepreneurs and experts mobilized on a regular basis
- > Over **10 000** m² of available space: incubator and business centers
- > **70** hectares dedicated to innovation and entrepreneurship



ENTRANCE EXAMINATION

Applicants must be graduated in the field of engineering, management or design. French students must have completed a Master 1 degree (240 ECTS) and International students a Bachelor degree.

Selection is based on the quality of academic background together with solid professional project. Application of candidates with a significant professional experience may be considered. The Admission Board will consider the applications and may decide for an interview in English to further clarify the motivations of the candidates.

Level of English required: B2 minimum (IELTS, TOEFL, TOEIC accepted)

APPLICATION FORMS ARE AVAILABLE ONLINE

For Engineer profiles:
<http://www.epf.fr/en/msc-ice>

For Manager / Designer profiles:
www.concours.groupe-esc-troyes.com

TUITION FEES

- For the academic year 2017-2018
- > European applicants: €8.900
 - > Overseas applicants: €10.200

ACCOMMODATION IN TROYES, CHAMPAGNE

Various possibilities of accommodations are available close to EPF or ESC campuses, or in downtown Troyes. Accommodation costs are very reasonable in the range of €300 to €450 per month.

AN ECOSYSTEM TO DEVELOP YOUR INNOVATIVE PROJECTS!

The city of Troyes is located in Champagne less than 90 minutes away from the heart of Paris. This city shows tremendous dynamism with its 10 000 students. The MSc Innovation, Creation & Entrepreneurship courses, are taught on 4 campuses ensuring a dynamic environment and high level academics.



About 20 major national and international players in innovation and entrepreneurship support the programme:



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