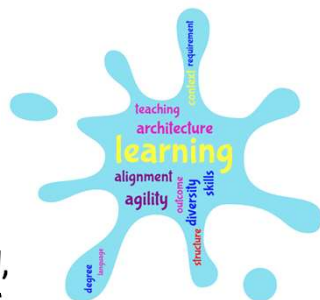




Agility,
Resilience and
Transformation
in Curriculum Design



The DECART curriculum canvas, as a tool,
permits higher education stakeholders to:

- share and confront ideas in curriculum design in a synthetic manner abstracting their details
- increase the quality and relevance of curriculum design activities
- foster collaboration & enhance capacity to operate jointly between programs
- boost interoperation of curriculums

With this curriculum canvas, you can:

- shape the broadlines of a new curriculum to design
- describe an existing or under development curriculum
- stimulate changes with cards and discuss component links
- confront a curriculum to an operational context
- pressure a curriculum with disruption & crisis cards

Once a curriculum designed in the canvas, curriculum resilience analysis & transformation are available via other DECART tools.

More infos:

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IMT Atlantique
Bretagne-Pays de la Loire
Ecole Mines-Télécom



Cti

IMT Atlantique, France

Formation
Ingénieur Statut
Étudiant

1.0, April 2025

More Details

<https://www.imt-atlantique.fr/en/study/engineering?p=OZHTcJ3Ov1My>
<https://www.imt-atlantique.fr/sites/default/files/document/brochure-ingenieur.pdf>

Master of Science in Engineering "Diplôme d'Ingénieur"

General Description

- An IMT Atlantique engineer is expected to have perfect understanding of complex, highly interconnected systems.
 - developing his/her ability to network in an intercultural environment, he/she is trained as executives capable of understanding and mastering the major challenges of a company of the future.
 - focusing on agility, he/she is able to create a diverse and inspiring career path!
- Min. 9 months of internships, in France or abroad, spread over the 3-year curriculum to map out a solid professional project and to exercise newly acquired skills.
- A flexible curriculum that meets student expectations as closely as possible!
- French CTI and EUR-ACE accredited
- Stance on society's major industrial, digital and environmental transformations.
- Top 10 engineering schools in France, one of the top 400 universities in the world in THE World University Ranking.

Operational Context

- Technological university under the authority of the French Ministry of Industry and Digital Technologies.
- Teaching and research staff deliver high-level teaching in the digital, energy and environmental sectors while maintaining a focus on the humanities and social sciences.
- body of 250 passionate teacher-researchers
- Approx. 2300 students, including approximately 40% international students, originating from >70 countries.
 - 25% increase of student population by 2027
- 91% of graduates in work within 2 months of graduation (incl. 77% before the end of their studies). Salaries increased in 2023, reaching €40,824



Goals Learning Outcomes



Digital, energy and environmental technologies

1. Understanding, analyzing and summarizing a complex problem and/or situation
2. Solve a complex problem by combining theory and practice
3. Design and build systems and organizations
4. Critique and make decisions
5. Innovate and undertake in a complex and uncertain context
6. Manage an innovative, complex, risky or high-stakes project
7. Lead and manage a team using different management methods
8. Cooperate, particularly in international and intercultural environments
9. Communicating
10. Integrate social issues into decisions and actions
11. Integrate organizational issues into decisions and actions
12. Reflecting on oneself, one's knowledge and experience
13. Adapt and evolve
14. Commitment

Teaching & Learning



- Internship: 26%, min. of 9 months' internships, spread over the three years
- Practicals: 20%
- PjBL: 15%
- Labs: 18%
- Lectures: 10%
- Languages: 6%
- Breadth intersemesters: 4%
- Flipped classroom: 5%
- and sport & associative activities

Assessments

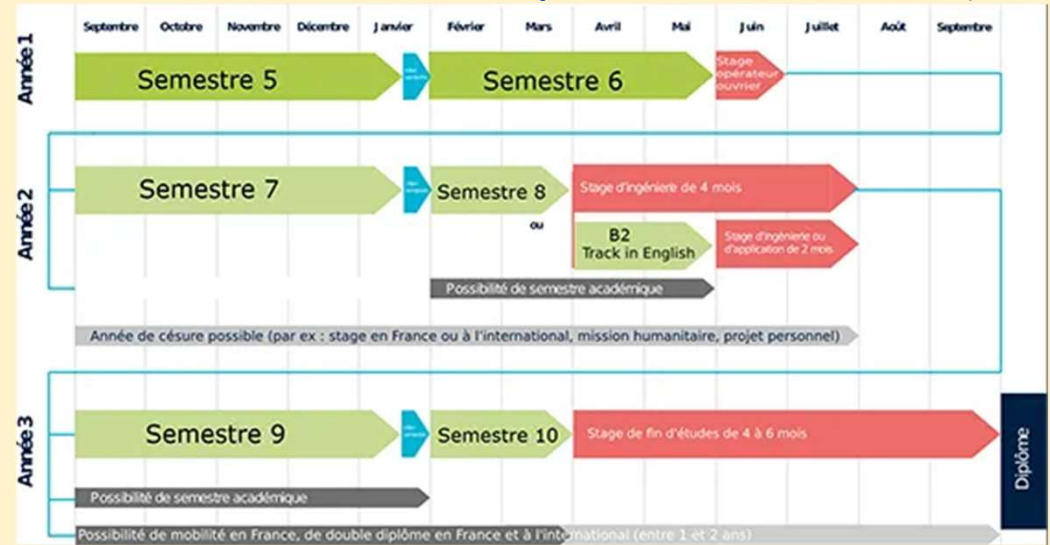


- 30 ECTS per semester
 - BSc. Year 3 60 ECTS,
 - MSc. 120 ECTS
- Written exams
- Orals,
- Reports
- Internship assessments

Structure



- Integrated curriculum style:
 - Year 1 (last year of BSc), either the Brest or Nantes campus, consists of a common core syllabus, inter-semester course, job experience internship with a company;
 - Years 2 & 3 (Master 1 & 2), open up a wide range of opportunities on 3 campuses and campuses abroad. Common core syllabus which is completed by two specialisation subjects, projects and inter-semester activities.
 - Majors (TAFs = *thématiques d'approfondissement*): (1) Energy, nuclear & environmental engineering, (2) CS and networks, (3) Industrial engineering and organizations, (4) Electrical engineering/robotics, electronics, automation, telecommunication and embedded systems, and (5) Healthcare engineering



Transversal Skills



- Openness, autonomy and flexibility are the watchwords
- wide range of scientific and technical skills, engineer with a command of a broad scope of disciplines.
- Interpersonal skills and cross-disciplinary competencies by as working in an intercultural environment.
- Environmental and societal transformation (TES)
 - Significant contribution from research to the challenges of TES
- Research & innovation

Entry Requirements



- After the French *Concours commun Mines-Ponts (305 students)* or the French *GEI-Univ. competitive entrance exams*
- 60 places for French and foreign students who hold a BSc. Or MSc. Degree in Science:
- Tests in French and Sciences:
 - maths
 - physics
 - electronics-electricity-automation
 - information technology
 - engineering sciences
 - mechanics, civil engineering

Diversity & inclusion



- ODD 10: >29% of international students from developing countries
- 100% of students with financial aid for accommodation and food on campuses
- ODD5: 23,2% female students
 - Women in M, CPED member
 - Leadership and salary negotiation for women
 - mission Egalité Femmes
 - Women 100 Professions programme
 - online module to raise awareness of sexual and gender-based violence.
- *Bienvenue en France* label

Languages



- French & English (level C1)
- another language (level B2): up to four languages: Arabic, Chinese, French (foreign language, German, Italian, Japanese, Portuguese, Russian, Spanish interculturality provided by specialists)

Locations



- 3 campuses in Bretagne-Loire: Nantes, Brest, and Rennes.
- Dual degrees & exchanges: international experience. It can be an academic semester at one of the numerous partner universities, a year abroad for a double degree or an internship
- network of 180 academic partners throughout the world. To go further, the university has signed 51 dual degree agreement