

CONTACTS		
Our School	230 years of history. 1300 students, 18 research centers, 250 talented research professors. 1 st school for industrial partnership research, a unique link with companies.	60 Boulevard Saint-Michel 75006 Paris + 33 01 40 51 90 00 www.mines-paristech.fr ERASMUS Code: F PARIS081
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APPLICATION		
Typology of Exchange Students concerned by this procedure	Mines ParisTech has signed more than one hundred agreements on all continents to cooperate within the framework of the Master of Science in Engineering Programme. International students concerned by this procedure are: <ul style="list-style-type: none"> - Students selected in the framework of the double degree agreements signed by Mines ParisTech with its partners. These agreements lead to the validation of both degrees (degree students). - Students selected in the framework of ParisTech admission program. This program is also leading to the Master of Science in Engineering Degree (degree students). - Student admitted as “visiting students” for a semester or a year willing to get credits for their studies at MINES ParisTech which can be recognised by their home institution (exchange students and Erasmus students). 	
Nomination Procedure	Before submitting your application, you should be officially nominated by your home university. Nominations should be endorsed by e-mail via the international coordinator of the program. Please note that only nominations from our partner universities will be taken into consideration. Nomination can be sent prior the application deadlines, or with the application package to international@mines-paristech.fr	
Application Deadlines	<ul style="list-style-type: none"> - 27/09 for degree students (entrance in September of the following academic year) - 31/10 for visiting students applying for Spring semester - 30/04 for visiting students applying for Fall semester or the whole academic year 	
Application Procedures	Follow those steps in order to complete your application: <ol style="list-style-type: none"> 1. Fill the application form : https://www.minesparis.psl.eu/Donnees/data38/3817-Application-form-2022-2023.pdf (click on "formulaire de candidature") 2. The application file must be completed and sent by email to international@mines-paristech.fr. You should add to your application all the required documents in one, single electronic document PDF file. An incomplete application file will not be processed. 	

<p>Required Documents for Application</p>	<ul style="list-style-type: none"> - A statement of purpose explaining why you wish to pursue engineering studies at MINES ParisTech, what you plan to study, and what you would like to do in your career (350 words) ; - CV in French ; - Stamped transcripts of records of the last 3 years of studies issued by your home university ; - Academic honours, distinctions, awards or scholarships obtained ; - Ranking certificate over the last 3 years in your school/department ; - List of courses in which the student is currently enrolled ; - Photocopy of passport or identity card ; - Recommendation letter (at least one) ; - Proof of French language level (not mandatory through the application for the winter term) ; - Proof of English language level (for degree students if available). <p>For visiting students:</p> <ul style="list-style-type: none"> - Learning agreement approved by your home university.
<p>Language Requirements for Application</p>	<p><u>French:</u></p> <p>95% of the courses are taught in French. It is thus a requirement that all degree students and visiting students be proficient in French. We require a level of at least B1. It is expected that all students provides a French language certificate: TEF: 204 ; DELF: A2 ; TCF: 200.</p> <p>Candidates applying in November as degree students and who has not passed yet any French exam, can provide this certificate after the admission, but before the beginning of the courses.</p> <p>Without the required minimum, Mines ParisTech reserves the right to refuse the application.</p>
<p>ACADEMIC INFORMATION</p>	
<p>Semester Dates</p>	<p>Fall semester: start of September to mid-February Spring semester: mid-February to end of May</p>
<p>Master of Science in Engineering Study Programme</p>	<p>Information on the Master of Science in Engineering programme at Mines ParisTech can be found on the following webpage: https://admissibles.mines-paristech.fr/</p> <p>Description of the study programme</p> <p>Mines ParisTech Master of Science in Engineering Programme consists, for French students, in a 3-year programme, in which they enrol after 2 years of preparatory classes (equivalent to the first two years of a Bachelor’s degree in a honours class). In most cases, international students are admitted in the last two years of the engineering programme at master’s level.</p> <p>At this level, in addition to core courses and electives, students have to choose a concentration in a specific engineering field, called “options” (minor) and to implement a technical project related to an industrial problem under the close supervision of a tutor from one of MINES ParisTech 18 research centers, leading ultimately to an internship of at least 3 months in industry, and concluding by the submission of a master thesis and its oral presentation in the presence of scientific specialists and of the industrial partners.</p> <p>These Minors options are: Control system, Robotics, Vision & Morphology, Biotechnology, Process engineering, Industrial Economics, Nuclear Engineering, Geosciences, Geostatistics and Applied Probability, Scientific Management, Design Engineering, Innovation and Entrepreneurship, Public Affairs and Innovation, Machines and Energy, Information Systems and Computer Engineering, Material Sciences and Engineering, Underground Engineering and Management, Production Systems and Logistics. A presentation can be found on the following webpage (French): https://admissibles.minesparis.psl.eu/wp-content/uploads/2019/10/Options2019.pdf</p> <p>The most common class formats are case studies, discussions, student projects, lectures.</p>
<p>Course Selection</p>	<p>The course catalogue can be viewed on the following web page: https://catalogue.mines-paristech.fr/#cp=home</p> <p>Please note that not all the courses are open to visiting students due to limited number of places. These courses are: Ski Maths, Geology seminar, MIG, minor courses (<i>cours d’option</i>).</p>
<p>Degree Students</p>	<p>Special requirements for degree students</p> <p>Degree students have to choose a minor (“Options”) at Mines through their application (see more details below).</p> <p>To graduate at Mines ParisTech degree students must validate 120 ECTS (including 90 ECTS for courses, 6 ECT for the compulsory internship and 24 ECTS for the minor final project).</p>

<p>Visiting Students (non-degree)</p>	<p>Visiting students options</p> <ul style="list-style-type: none"> - one semester of coursework, or - two semesters of coursework, or - one semester of coursework plus internship project (if recognized by the home institution). <p><i>Is it possible to spend a semester as visiting student for achieving my thesis project? No.</i> If you wish to undertake only a final project (or Thesis Project), you have to contact one of the research departments of Mines ParisTech by directly sending a CV and a motivation letter stating your research topics of interest.</p> <p>Special requirements for visiting students</p> <p>Visiting students must establish a study programme. This study programme must include a minimum of 20 ECTS per semester.</p>
<p>Fees</p>	<p>Most part of international incoming students (double-degree and visiting students) are waived from tuition fees, but they have to pay some additional fees concerning health and other insurances.</p>
<p>STUDENTS SERVICES</p>	
<p>Living Expenses</p>	<p>On-campus room: around 300-500 € / month + two-months deposit Meals: 250 € / month Health insurance (depending on student status): 215 € / year</p>
<p>Funding Opportunities at Mines ParisTech for double-degree students</p>	<p>Eiffel Excellence Fellowship</p> <p>Mines ParisTech will propose each year the application of international students ranked in the top 10% of their students class to this programme. This scholarship includes a monthly payment of 1181 euros during 2 years, a 2-way flight ticket and the health insurance coverage.</p> <p>Excellence fellowship awarded by Fondation Mines ParisTech</p> <p>Fondation Mines ParisTech offers around 10 scholarships each year for international students admitted as degree seekers students in our engineering degree. These scholarships include a monthly payment of 700 euros during 16 months.</p> <p>Corporate fellowships</p> <p>Mines ParisTech has strong links with industry and some scholarships can be awarded to international students admitted to the school. The eligibility criteria and fellowships condition depend on each program.</p> <p><i>Fellowships from you home country:</i> Erasmus+ (if European home university is a partner university), Arfitec (Argentina), Brafitec (Brazil), Becas Chile, CSC Scholarship (China), Jovenes Ingenieros (Colombia), Mexfitec (Mexico), etc.</p>
<p>Insurances</p>	<p>Health insurance is compulsory. All students must show proof of health insurance coverage for the duration of their stay at Mines ParisTech (i.e. a European health insurance card, etc.). Student health insurance in France is free but every student should register on: https://etudiant-etranger.ameli.fr/#/. International students should also be covered with a civil liability insurance for physical injury or material damages caused by the students. The insurance is provided by Mines ParisTech.</p>
<p>Visa</p>	<p>Visa requirements differ per country. We recommend that you contact the French Embassy or Consulate in your country directly at least 3 months prior departure. They will inform you of the process for obtaining a visa, including potential cost. The Residence permit is managed by our admission office upon arrival.</p>
<p>Housing</p>	<p><u><i>Double Degree students</i></u></p> <p>The students admitted in our Master's in Science in Engineering will get a room in the students' residence (Maison des Mines), located near the Institute. The monthly rent is about 300€.</p> <p><u><i>Exchange Students</i></u></p> <p>Non-degree exchange students and visitors can also apply for a room at the "Cité internationale", but we cannot guarantee a place. Also you can visit the Housing Service of PSL.</p>



16 novembre 2021 ■ ■

- **Course offer for exchange students at MINES Paris**

Important information to keep in mind when choosing courses

1. MINES Paris offers 2 major programmes:
 - Master's Degree in Science and Executive Engineering (Grande Ecole Programme) – Graduate year 1
 - Master in Energy – Graduate year 1 and year 2
2. You cannot mix courses from different semesters, different programmes and different levels of study.
3. Sometimes courses are offered within modules and if you want to take these courses you will have to take the entire module. Please ask if you are not sure.
4. MINES Paris imposes a minimum requirement of 20 ECTS credits per semester for exchange students. Double-degree students must take 30 ECTS per semester.
5. Each course is validated by acquiring ECTS (European Credit Transfer System).
6. Please be informed that there might be changes in the course offer.

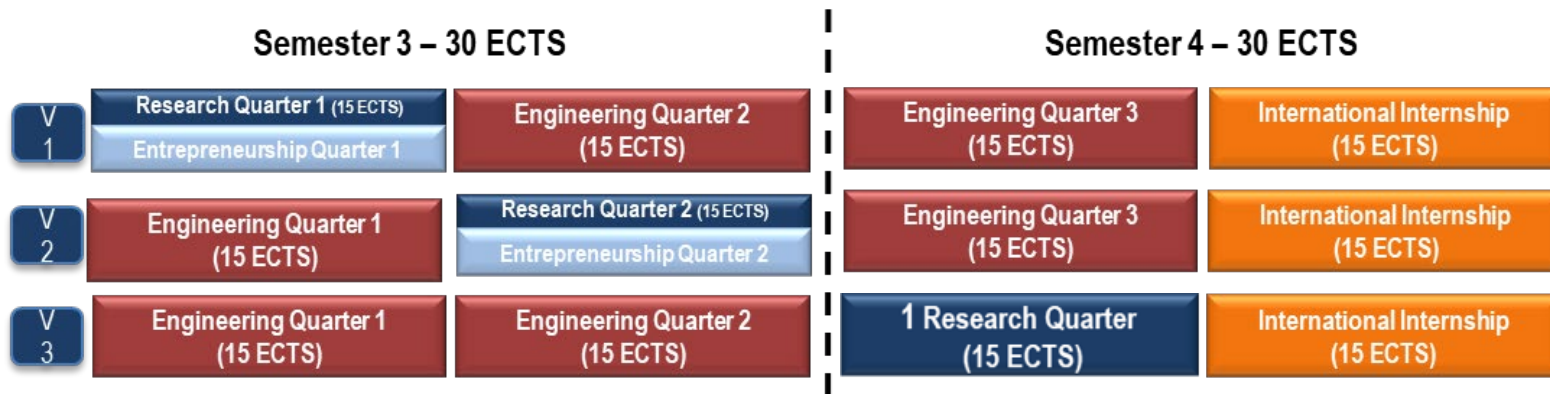
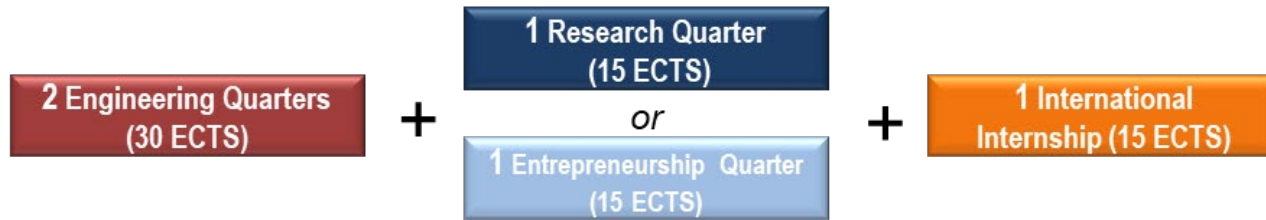


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- Master's Degree in Science and Executive Engineering - Programme in French 

Structure of Graduate Year 1 – FRENCH

The first year of Graduate is composed of two semesters (S3 and S4), each of them divided in two terms or quarters (T1, T2, T3, T4)

There are four types of terms or quarters and students can mix them as it is shown below:



A full year exchange student must select two engineering terms.

- This 15 ECTS credit course is designed so that each engineering student can fully integrate into the world of into the world of research for one term and carry out a fundamental or applied research activity by taking advantage of the variety and excellence of MINES Paris's and PSL research centers. This is why the research term has the following objectives:
 - Enable engineering students to conduct inductive reasoning that combines scientific rigor, the virtue of doubt and the ability to question themselves.
 - Enable engineering students to understand and take into account into account the challenges of research and innovation
-
- See code UE32 on [the catalogue](#) for list of available themes during Term 1 and 2
 - See code UE42 on [the catalogue](#) for list of available themes during Term 3



- This 15 ECTS pedagogical space aims to give students who choose it skills (identify and seize opportunities for innovation or creation, managing uncertainty, communicating, negotiating, building a team, team building), and knowledge (marketing and innovation and innovation, entrepreneurial finance, construction of business plans, intellectual property) in order to face the situations of start-up creation. To do this, it relies on courses and seminars with entrepreneurial ecosystem, particularly from venture capital and a design studio approach in the entrepreneurial the School's entrepreneurial space with personalized support for each creation project.
- See code UE32 on [the catalogue](#) for list of available subjects during Term 1 and 2.
- This term is only available for students with an advanced level of French



15
ECTS

The internship term/quarter

- The internship term consists of a professional experience of 5 months that is awarded 15 ECTS after submitting a report.
- The internship term is only available during the Spring semester
- Students will have access to an internship research platform

15
ECTS



The engineering term/quarter(s)

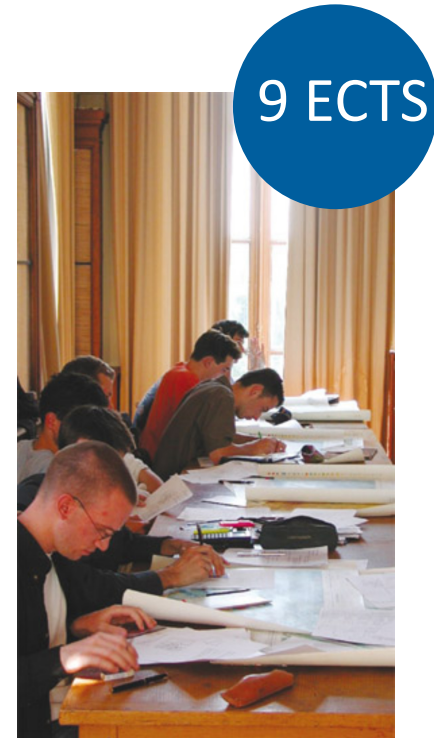
Organized in the form of multidisciplinary courses, tutorials and practical work to be distributed to constitute equivalent to 4 ECTS credits, and a semi-autonomous project sequence equivalent to 5 ECTS credits.

These modules or terms aim to :

- To use knowledge, methods, and tools to realize a system prototype and/or a software (importance is given to concrete realization),
- To acquire working methods and a mastery of the tools and software used by engineers for the design and realization of complex technical systems.

These projects complete the base of scientific and technical knowledge in one or more specific fields of engineering sciences. The skills developed are of a technical nature as well as in the area of cooperation, sharing of expertise and management of constraints. Finally, they allow to clarify the technological choices made in different sectors of activity.

See [UE31](#) code for subjects Fall, UE41 for Spring in [catalogue](#)



Specialized courses are also available for students **during the engineering terms**. They are called « enseignement spécialisés ». Their credits vary between 1 and 2 credits per course.

Language courses are also available but the admission may vary according to the level of the student.

PSL Week:

In November and March, students are allowed to select one course during the blocked teaching weeks common to the PSL engineering schools : ESPCI, Chimie ParisTech and Mines Paris

ATHENS Week:

In November and March, ParisTech organizes with its partners in the international ATHENS network to organize European teaching weeks: each institution offers courses open to all students





Master in Energy – Programme in French and English



Objective of the program:

Deliver to the candidates an **expertise in the energy sector** and the **decarbonation challenges**. You will be able **to assess the environmental and economical performances of an energy system**, and understand **energy conversion and storage systems**. You will learn methods and tool for modeling and optimising these systems.

Structure of Graduate Year 1 – FRENCH and ENGLISH



The first year curriculum is organized into two academic semesters based on scientific, humanities and social sciences, language and culture, and project-based activities. A compulsory one-month discovery internship is carried out at the end of the course, at the end of May and beginning of June.

Fall semester Course	Language	ECTS
Equilibrium thermodynamics	En	2
Electro-chemistry and corrosion	Fr	3
Process design	Fr	4
Modeling industrial processes	En	3
Basics on nuclear energy	En/Fr	3
Python programming	Fr	2
Data Processing	Fr	2
Literature review - Bibliography	Fr/En	5
PSL WEEK	Fr/ En	3
English		3
TOTAL		30

Spring Semester Courses	Language	ECTS
Thermal-thermodynamics	En	6
Mechanics of fluids	Fr	3
Electrical engineering and networks	En	2
Electronic properties of solids	En	3
Practical workshop	Fr	3
Electrochemistry/Thermics		
PSL WEEK	Fr/En	3
Profesional training (resume...)	Fr	1
English		3
2-month lab internship + bibliographic project		6
TOTAL		30

Structure of Graduate Year 2 – ENGLISH

The second year curriculum is organized in one academic semester and is based on scientific courses, human and social sciences, languages and cultures and project-based activities. The second semester is devoted to a compulsory 5 to 6 months' end-of-study internship, starting at the end of February - beginning of March.

In the first semester, students must choose two tracks out of the four proposed. Once these choices of tracks are validated, no changes will be possible.

Fall Semester	ECTS	Spring Semester	ECTS
Core module <ul style="list-style-type: none"> • CM1: Introduction to energy • CM2: Thermodynamic Energy Systems Modelling • CM3: Refresher courses (Thermodynamics, materials, Fluids mechanics, electrochemistry) • CM4: Life Cycle of Energy Systems 	6 1 2 1 2	Internship in R&D (5-6 months / 320hours) Either in the industry or in academic lab	30
2 tracks* out of 4 among : <ul style="list-style-type: none"> • Track 1 Energy Efficiency • Track 2 Reducing Carbon Footprint of Energy Systems • Track 3 Renewable Energy Integration • Track 4 Technologies of Renewable Energy Systems 	18 9 9 9 9		
PSL Week	2		
Business Intelligence	2		
Language (English/French)	2		
TOTAL	30		

*See detailed tracks on the next slide

Structure of Graduate Year 2 – ENGLISH

Each course within a track is worth 3 ECTS.

Track 1 Energy Efficiency	Track 2 Reducing Carbon Footprint of Energy Systems	Track 3 Renewable Energy Integration	Track 4 Technologies of Renewable Energy Systems
T1.1 : High energy-efficient industrial processes	T2.1 : CO ₂ Capture and Storage (CCS)	T3.1 : Resources (solar, wind and hydro)	T4.1 : Fuel cells and electrolysis
T1.2 : Energy efficiency of mobility systems	T2.2 : Alternative fuels (H ₂ , biomass, biogas,..)	T3.2 : Power systems	T4.2 : From photovoltaics to thermoelectricity
T1.3 : Energy efficiency of Urban Systems and Buildings	T2.3 : Utilisation and Valorisation of CO ₂ (CCUV)	T3.3 : Storage of REN	T4.3 : Energy conservation and storage (Battery, supercap,...)

Prerequisites

- **Master's Year 1:** Students must have a Bachelor's degree or a Bachelor of Science degree (Chemistry, Physics, Science and Technology, Mechanics, Engineering Science, etc.). or equivalent
- **Master's Year 2:** Students must have reached the M1 level in science.

Language requirements

- Master's Degree in Science and Executive Engineering : B1 level in French
- Master Energy : B2 level in French/English according to the selected courses

