





INTERNATIONAL ENVIRONMENTAL MANAGEMENT EnvIM Leaflet-2021-2022

"Innovation and Environmental Management for a better future"

EnvIM "International Environmental Management" is a Post-Master program designed for young graduates holding a Master's degree or young professionals who wish to complete their curriculum with a specialization in the field of environmental management, in an international context, and is open to applicants with diverse backgrounds and university curriculum.

This international training program is based on an innovative and practical pedagogy based on lectures and projects, and partnership with European and Chinese Universities for a period abroad. Faculty, and professionals involved in this program provide students with a strategic and forward-looking vision, and introduce students to new concepts, latest scientific developments and innovative management practices, and what is at stake for a world in transition. Through these lectures, open discussions, time to share with academic partners during their stay abroad, by means of various team projects on real-life professional situations and case studies, students have direct feedback about complex environmental issues, considering holistic approaches, tools for assessment and decision making.



An International Post-Master

EnvIM is a MINES ParisTech and INSA Lyon training program accredited by Conference des Grandes Ecoles, in partnership with European and Chinese Universities offering various pathways through three options, around a common core in France. This program is led and structured by two academic French partners having a common objective to offer a unique and structured program for future environmental managers. This program leads to **Post-Master's Degree in International Environmental Management**, *Mastère Spécialisé® labellisé Conférence des Grandes Ecoles* :

- EnvIM option Asia a 14-month program, with a semester at Tsinghua University (China), and in partnership with the University of Pennsylvania (USA),
- EnvIM option Europe, 14-month program offering three pathways for a semester in an European University (University of Patras – Greece, University of Basilicata – Italy, Polytechnic University of Bucharest – Romania),
- EnvIM option World a 12-month program specifically designed for applicants having a first experience in an international context or having an international background.

Academic Partnership

EnvIM training program was created in 2007 as a high-level academic program in these innovative fields.

MINES ParisTech was founded in Paris, France in 1793, and has nowadays 18 research centers in innovative scientific disciplines. Its high academic excellence and innovative pedagogy, with a low student/professor ratio, guarantee individualized support and personal guidance, thanks also to professionals and experts from the world of industry. Within MINES ParisTech, the EnvIM program is organized by ISIGE Institute, which belongs to the Earth and Environmental sciences Department situated on the Fontainebleau Campus. ISIGE aims to train students and professionals in subjects such as the planet and environmental protection, energy transition, ecological transition, from linear to circular economy, sustainable development and beyond...

Created in 1957, INSA Lyon is a leading engineering school in France with strong humanist values that have formed the basis of its business model for more than 60 years. INSA Lyon engineers lead careers built around a logic of high adaptability, a pioneering approach to science and technology, and a strong sense of social responsibility. INSA Lyon graduates nearly 1300 students each year, and boasts 23 research laboratories, more than 600 researchers and teacher-researchers, 650 PhD students, and over 1,000 industrial contracts with the socio-economic world.

Founded in 1911, Tsinghua University is located on the site of the former Tsinghua Garden in the Haidian District of Beijing, and welcomes today more than 30,000 full-time students. The School of Environment of Tsinghua University is well known in Asia for the high quality of its teaching and research, particularly in the fields of Water Management, Waste Management, and Industrial Ecology.

Founded in 1982, The University of Basilicata, colloquially known as Unibas, is an Italian public research university located in Potenza and Matera, Italy. It is one of the most reputed universities in South Italy and welcomes actually more than 500 academic staff including 7519 undergraduate students and postgraduate students. The School of Engineering of the University of Basilicata, aims to combine scientific skills with the demand for training and employment. The School of Engineering is based on three thematic departments: Department of Architecture, Transport Planning and Infrastructure, Department of Environmental Engineering and Physics, and Department of Structures, Geotechnics, Applied Geology.

University POLITEHNICA of Bucharest (UPB) is the oldest and most prestigious engineering school in Romania, founded in 1818. Creating knowledge mainly by scientific research, disseminating it through education and professional training, information technologies, as well as the use of technological innovation are the key elements that define the university distinctive profile. UPB participates in the EnvIM program through specialists from the Faculty of Power Engineering, in areas such as energy policies and strategies, carbon storage, environmental protection, and financing of renewable energy projects.

The University of Patras was founded in the city of Patras in 1964 and it began functioning in the Academic year 1966-67. The University is situated in Patras, Messolonghi, Agrinio, Aigio, Pyrgos, Amaliada. The campus in Patras is located in the suburb of Rion. It is a self-contained campus located at the foot of mount Panachaico with a view over the Gulf of Corinth and the mountains of Central Greece across the water. The University consists of five Schools, twenty-four Departments with Undergraduate Study Programs leading to a specific Degree.

Presentation

Option EnvIM ASIA – France / China pathway

This option is a 14-month broad-based program in France and China. This program is designed for students and young professionals who will acquire knowledge, competences, and best management practices from studies in China and France that focus on a large panel of environmental issues, challenges for a fair ecological transition. This option being generalist welcomes students having very diverse backgrounds

The program begins in September with a brief orientation in Paris and a 3-month academic period at the School of Environment at Tsinghua University, followed by a 4-month common academic part in France at MINES ParisTech and INSA Lyon (Common program).

This academic pathway through France and China, leads to the Mastère Spécialisé® in International Environmental Management. In parallel Tsinghua University offers the possibility for EnvIM students to apply to the Master of Engineering in Environmental Engineering.

- September one welcome week, Paris, France
- Mid September December: academic period in China offered by Tsinghua School of Environment
- January April: common academic curriculum, MINES ParisTech and INSA Lyon
- A 6-month professional period in a company or organization, May to October, during which the student prepares a professional thesis and defends it in Paris and in Beijing, in November and December 2021



Option Asia, China pathway

Option EnvIM Europe, 3 pathways: Greece, Italy, and Romania

This option is a 14-month broad-based program in France and an European Country, offers 3 pathways in Greece, Italy, or Romania. This program is designed for students and young professionals who will acquire knowledge, competences, and best management practices from studies in Europe that focus on a large panel of environmental issues, challenges for a fair ecological transition. This option being generalist welcomes students having very diverse backgrounds, but good basic scientific knowledge is required.

The program begins in September with an orientation week in Paris, then two weeks in Lyon to introduce environmental management and 10 academic weeks in an European University chosen among 3 pathways

University of Patras - Greece,

University of Basilicata – Italy,

Polytechnic University of Bucharest - Romania),

followed by 4-month academic part in France at MINES ParisTech and INSA Lyon (Common curriculum program). This academic pathway through France and an European Country, leads to the Mastère Spécialisé® in International Environmental Management.

- September one welcome week, Paris, France
- Mid-September: 2 weeks at INSA Lyon, France: Introduction to the environmental management
- October December: academic period in one of the 3 European University
- January April: common academic curriculum, MINES ParisTech and INSA Lyon
- A 6-month professional period in a company or organization, May to October, during which the student prepares a professional thesis and defends in November or December 2021



Option Europe - Romanian pathway (UPB)

Option EnvIM World, France Pathway

This 12-month program in France is designed for international, or European students, and young professionals who will learn about European practices and acquire new knowledge and competences for their professional careers in an international context. This option consists of:

- The 4-month common academic curriculum in Lyon, Paris and Fontainebleau, January to April
- A month dedicated to a professional International Project in May
- A 5-month professional period in a company or organization, preparing a professional thesis and its defense in Paris, December.

Internship, Professional Thesis and Defense

Students have to find and complete a 5 to 6-month internship in a company or organization. The subject of this professional period is proposed by a company, industry, NGO, or institution, to solve current issues related to environment, energy or sustainable development... For the student, this is a chance to build on his or her prior studies and to use recently acquired skills from the post-master program by successfully carrying out a meaningful project in an international, professional setting.

The professional period can be organized in the frame of an internship, or a job period, or a "French International Internship Program" (V.I.E) for French students. Internships are possible in France mostly for French-speaking students, but internships in Europe or worldwide are a good way to strengthen an international experience.

On the basis of their internship period, each student has to write a professional Thesis which will be submitted and defended in front of a jury. Defenses are scheduled from the end of November to mid-December. Because this work leads to a thesis, it must constitute a significant contribution to the enterprise: students must show realism in the way they treat the subject, but also originality and innovation.



Hiring rates

After this period, EnvIM students enjoy excellent hiring rates – more than 60% before graduation - and quickly integrate into leading industrial stakeholders, consultancy companies, small and medium enterprises, or NGOs...

Alumni Association

One main asset of this Post-Master's Program is its alumni network, through ISIGE Alumni, Mines ParisTech Alumni, Intermines and INSA Alumni. Created in 1864, the MINES ParisTech Alumni network aims to represent the school in many countries, to help students in their administrative tasks, to assist the managing board in its strategic choices and to enhance the recognition of its programs. The Alumni networks are administered by three associations: **ISIGE Alumni, MINES ParisTech Alumni** and **INSA Alumni**.

Admission

Option Asia and World students may have a wide variety of backgrounds in sciences, engineering, business and economics, political science, and the environment and sustainable development. A good international English proficiency is required; classes and projects are conducted in English. Note that Master's degree students from University of Pennsylvania and from University of Tsinghua are welcome to apply under certain conditions (see below)

Option Europe welcomes applicants having an engineering or Scientific background, generalist or specialized:

This program welcomes applications from

- Young graduates or professionals holding a Master's degree or equivalent degree
- Bachelor's degree with at least 3 years of professional experience in environment or connected topics.

Particular cases and exemptions: Penn Master's Degree students: one year at least of graduate courses, depending on options, for option Asia and option World. Contact Prof. John Keene or Dr. Yvette Bordeaux, or Sally Cardy, Tsinghua Master's Degree students for option Asia, contact Prof. MING Zhao (School of Environment)

Application forms and more information: <u>http://www.isige.mines-paristech.fr/formations/candidater/</u> The admission period opens in December each year:

- Pre-selection based on the application files send from January for EnvIM Asia and Europe, (earlier for students who need to apply for a scholarship). Note that applications to several options are possible
- Upon eligibility, a written test, then an interview are conducted by a panel of professionals and professors from INSA Lyon and MINES ParisTech, to get to know the applicant and his/her professional projects and goals, and to ensure coherence with the program. At this stage are discussed the various pathways offered by EnvIM Option, a wish list being specified by applicants
- Interviews can be held by video-conference for students abroad.
- Acceptance into this program (for one given option and /or pathway) is determined by academic achievements, motivation, test and interview, and space availability in each option / pathway, a final acceptance is required by the partner university for option Asia and Europe
- Final admission and registration in May, by June at the latest.

Tuitions and Fees, financing

EnvIM Asia:	€14,000
EnvIM Europe:	€14,000
EnvIM World	€10,000
+ registration fees	€800

Tuitions and Fees for Asia option include a round trip from Paris to Beijing.

Not included are the travel expenditures to join the program in France, or in Europe, accommodations in Fontainebleau, Lyon, and accommodations for fall semester abroad, visa fees, insurance, and subway or train tickets in Paris and Ile-de-France, or in Lyon.

Financing the program:

Most students finance the cost of the program with their own funds or student loans. However, French banks generally require a guarantor located in France. In all cases, the 6-month period in a company or internship is usually compensated and provides students with extra financial resources.

Under certain conditions, some EnvIM students may find and undertake an internship with a French industrial partner to work on a specific study. In some cases (in France usually and for specific studies linked to R & D only), the company pays for part of the student's tuition in EnvIM Program.

Financing for international students: this joint program does not offer any possibility to apply to a scholarship directly, students have to contact "Campus France" in their country, see their webpage and scholarships fitting nationality and background:

https://www.campusfrance.org/en

Accommodations

China - Beijing:

Tsinghua University's international residence office welcomes students admitted in this program: the average cost for an accommodation in Beijing for the 3 months is 1,200€ - 1,500€. The application process for residences opens in July each year. See: <u>https://www.tsinghua.edu.cn/en/Campus/Student_Life.htm</u>

France:

- MINES ParisTech campus is located in Paris (Boulevard Saint Michel) and some projects or lectures are organized in Fontainebleau as well. The closest train station to the MINES Paris Tech campus from Paris Gare de Lyon station is "Fontainebleau Avon" (40 minutes from Paris). The average cost for lodging in Fontainebleau or Avon is 350€ to 400 €/month. It is often possible to share an apartment with other students in order to reduce costs.
- Ideally located in south-eastern France, just 2 hours by high-speed train from Paris and 1 hour 40 minutes from the Mediterranean coast and the big ski resorts of the Alps; the Lyon-Tech La Doua Campus is located in the city of Villeurbanne, just east of Lyon, 15 min away from the city center. It is green and pleasant and the second-largest city on the Rhône river with 150,000 inhabitants. The campus can accommodate all students in one of the school's 11 halls of residence. The accommodation ranges from studio flats to two-bedroomed apartments which are furnished with a bed, a desk, a bathroom and a small kitchen. Prices range between 300€ and 600€ for a double room in a two-bedroomed apartment, or a one-bedroomed apartment with balcony. The following charges are included: heating, electricity, water, condominium taxes, wifi and access to common rooms.

Websites and Contacts

http://www.isige.mines-paristech.fr/formation/envim/ http://www.mines-paristech.fr/Formation/Masteres-Specialises/Masteres-Specialises-temps-plein/ENVIM/

> ISIGE - MINES ParisTech PSL 35 rue Saint Honoré 77300 FONTAINEBLEAU - FRANCE Tel : +33 1 64 69 4878

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EnvIM Program

EnvIM proposes three options, with a shared semester, and specific projects and experiences. The Asia – France option includes 3 1/2 months in China, the Europe option includes 3 1/2 months in Lyon and through an European pathway in a University partner of the program (4 pathways), while the World option includes a month dedicated to specific case studies and projects on Environmental main challenge.

Duration of the full time academic period are: 770hr option Asia, 720hr option Europe, 550hr option World,

EnvIM - Core program

Outstanding speakers from international firms, civil society, and various research areas, introduce students to the latest scientific developments, assessment tools and methodologies, and innovative management practices that are relevant to environmental challenges and sustainability.

The EnvIM core program is mostly organized through innovative blended learning sessions. Students work in teams on many case studies and real projects developed in cooperation with experts, leading industrial companies, consulting firms or NGOs.

Core modules and programs main topics::

- International Environmental laws, sustainable development principles,
- Environmental Assessment tools: Environmental and Social Impact Assessment (ESIA),
- Tools for decision makers in complex environments
- The planet earth facing climate change, adaptation and resilience, governance, planetary boundaries, and Biodiversity
- INSA Lyon: three weeks on Strategies for waste management, rain water management in the city, climate change and environmental management
- Ethics for companies, new models for fair developments,
- From linear to circular economy, eco-conception and innovations
- Energy transition to low carbon society

Team Projects with experts and professionals: each project is unique and organized with dedicated lectures and teamwork, the purpose being to learn and apply methods and tools. Each project is also a time to experiment collective intelligence. New topics are suggested each year depending on current environmental issues Example of projects (2020):

- Environmental and Social Impact Assessment (large infrastructure project, (Dam on the Mekong river), Geopolitics of water sharing (Mekong river)
- Urban Sustainable Development workshop
- Agro-ecology and challenges of new models for fair development of commodities, how feeding 9 billion people in the future (4 commodities, cocoa, cotton, palm oil, coffee...)
- Energy transition, innovations for energy, and new business models (Greentech for energy)

Specific period for option EnvIM Europe

Two weeks at INSA Lyon for all option Europe students, for an introduction to the Europe Project and to fundamental knowledge on waste management, background for wastewater management and strategies and Technologies for waste management.

10 weeks (120hr) in an European University, partner of this program, offering 4 different pathways:

- University of Patras Greece, Air Pollution, Wastewater engineering
- University of Basilicata Italy, <u>urban planning, water treatment and management</u>, remote sensing, river dynamic, Environmental Modeling, chemical depollution plants, Air Quality monitoring
- Polytechnic University of Bucharest Romania, <u>Climate and energy</u>, Principles of Carbon Capture and Storage, Renewable energies, Energy Scenarios and Climate Protection, Energy finance

EnvIM European Projects

During their stay at the European University, students learn to work together as one team on an environmental topic in this country, during a long project. INSA Lyon and University Professors led these projects together, making sure that through this project, they will acquire new knowledge and competences, learning from experience, and using project management tools. Students organize an event, sharing the results of their studies with the other EnvIM students in January during a common Forum at Lyon. This project is equivalent to 90hr.

This period is followed by the 4-month academic part in France at MINES ParisTech and INSA Lyon (Common program)

Specific period for option EnvIM World

Following by the 4-month academic part in France at MINES ParisTech and INSA Lyon (Common program), a month (May, 100hr) dedicated to projects on environmental issues, with advices and guidance from professors, academic partners and experts such as:

- 2020 "Clean City with the City council of Paris"
- 2018 "Recycling versus Waste to Energy Approach to Solid Municipal Waste Management in Ghana"
- 2017 "Mining and society, remediation of polluted post-Mine area in France" with Geosciences and soil remediation experts

This month is an opportunity for students to develop real professional experiences by mean of an current environmental issue, a project led by MINES ParisTech Professors with field experts.

Specific period for option EnvIM Asia

Part of the EnvIM Asia program, this 3 1/2 months in China period full time, includes modules organized by Tsinghua University in Beijing. A generalist program main environmental topics and challenges China is facing, evaluation through assignments and work per group on case studies, led by Tsinghua Professors. From Environment management and policies in China,water and waste management, Air pollution control, Ecological quality assessment, Industrial ecology, material flow analysis...

EnvIM Asia Project

During their stay at Tsinghua University, students learn to work together as one team on an environmental topic in China led by MINES ParisTech. Students share in France the results of their studies with the other EnvIM students in January. Example of topics:

- 2018 Innovative Food Waste Management in Beijing
- 2019 Taking care of our things, uses and repairs of things in China

This 4-month period in China is followed by the 4-month academic part in France at MINES ParisTech and INSA Lyon (Common program)

