

INTERNATIONAL ENVIRONMENTAL MANAGEMENT (ENVIM) MINES ParisTech Post-Master's Program

Academic year 2019-2020

"Innovation and Environmental Management for a better future"

The Post-Master *International Environmental Management* (EnvIM) is a Post-Master's degree program recognized and certified by the "Conférence des Grandes Écoles" association in France since 2007, and co-signed by MINES ParisTech and INSA Lyon. This program is 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. Faculty, alumni, and professionals involved in the presentation of this course of study provide students with a strategic and forward-looking vision.

Participants in this training program, which is based on an innovative and practical pedagogy, will have the rare opportunity to meet local and international players in Europe and Asia, thanks to the wealth of themed travel opportunities, and to the industrial partners and experts involved in its projects, lectures, or case studies.



An International Post-Master's Program with Two Options

The EnvIM Double Degree 14-month program, initiated in 2007 and based on a partnership between MINES ParisTech, Tsinghua University (Beijing, China), INSA Lyon (France), and the University of Pennsylvania (USA), leads to two degrees in **Environmental Management**:

*The International Post-Master's Degree from MINES ParisTech, co-signed by INSA Lyon (CGE)
And a Master's Degree in Engineering from Tsinghua University in Beijing*

and since 2013, EnvIM 12-month Program "Option Europe," that is Designed for International Students, Leads to the Post-Master's Degree (Accredited by CGE) from MINES ParisTech, co-signed by INSA Lyon.

Academic Partnership

This training program was created in 2007 by Mines ParisTech, INSA Lyon (co-deliverers of the Post-Master for the French part), Tsinghua University in China, and the University of Pennsylvania, as a high-level academic program in these innovative fields.

Founded in 1911, Tsinghua University is located on the site of the former Tsinghua Garden in the Haidan District of Beijing, and welcomes today more than 30,000 full-time students. It is one of the leading universities directly affiliated with the Ministry of Education of China. 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.

MINES ParisTech was founded in 1793, and has 18 Research Centers. 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 Environment Research Center situated on the Fontainebleau Campus. ISIGE aims to train students and professionals in subjects such as environmental protection, energy transition, circular economy, and sustainable development - all topics now at the center of corporations' management and strategic decisions.

Presentation of the Programs

EnvIM - Double degree

This 14-month program in France and China leads to two Master's degrees. This program is designed for students and young professionals who will acquire new knowledge, competences, and best management practices from lectures and case studies in China and France that focus on environmental protection and climate change.

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 4-month academic period in France at MINES ParisTech.



- September 3 – 6: 2019 Welcome week, Paris, France
- September 9 - December 18, 2019: academic period in **China** offered by THU/SoE:
- January 6 - April 30, 2020: academic period in **France**, at MINES ParisTech, and two weeks organized by INSA Lyon in January
- 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 2020

EnvIM -Single Degree

This 12-month "Option Europe" program in France leads to the Post-Master's degree from MINES ParisTech, co-signed by INSA Lyon, designed for international students and young professionals who will learn about European practices and acquire new knowledge and competences for their professional careers either in their country or for their international career in Environmental Management. It consists of a 4-month common section in Fontainebleau with EnvIM – double degree students, and a 1-month section dedicated to projects.

January 6 to April 30, 2020, 4-month Program, two weeks organized by INSA Lyon in January

A 1-month (May) dedicated to projects on chosen Environmental issues, such as:

- "Mining and society",
- "Water stewardship and circular economy",
- "Off grid sun power production in Nigeria for remote territories,"
- "Developing environmental consciousness in Russia: design an eco-village in Tverskaya region."

A 5-month professional period in a company or organization, from May to October, and preparing a professional thesis and its defense in Paris, December 2020.

EnvIM Program

Tsinghua University - School of Environment (THU/SoE) – double degree (Asia)

Part of the EnvIM double degree program, this 3 1/2 month in China period includes modules organized by Tsinghua University in Beijing.

Modules are one or two week's duration, with field trips and projects:

The School of Environment of Tsinghua University provides a broadly based and high quality green education for sustainable development and environmental protection, and contributes to solving societal problems, promoting sustainable development in a country facing economic growth and addressing important global environmental challenges. For more information about SoE, its mission statements, exchanges and cooperative projects, see: <http://www.tsinghua.edu.cn/publish/enven/6269/index.html>

The Program addresses:

- Environment management and policies in China
- Sustainable management of water resources
- Waste water and potable water treatment
- Solid waste treatment and site remediation
- Low-carbon technologies and management
- Air pollution control, and a case study of transportation in megacities
- Ecological quality assessment, Geographic Information Systems
- Industrial ecology and circular economy, material flow analysis
- Chinese culture and society, and Chinese language (each week)

Past field trips around Beijing in October, and in the south of China, in December:

- 2016 From Chongqing to Chengdu (Sichuan province) along the Yangtze River
- 2017 X'ian, Shaanxi Province, and Shanghai

MINES ParisTech program – single and double degree options

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 program is based on an innovative and operational pedagogy.

The 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 with expertise in energy, water and infrastructure projects...

Key concepts: Green project management, introduction to tools for assessment and decision-making, major challenges, complex environmental context, from linear to circular and life-cycle thinking, start-up in the environmental sector.

- The planet earth is facing climate change, adaptation and resilience, and an energy transition
- Sustainable development principles, environmental laws
- Tools for decision makers in International context of projects
- From linear to circular economy, Life Cycle thinking
- Environmental Assessment: and System Analysis: the knowledge of main tools and their application perimeters and context, such as Environmental and Social Impact Assessment (ESIA), Life Cycle Analysis, Eco-Design concepts

- Initiation to environmental economics, applied to international strategy for mineral and natural resources development
- Companies and environmental Project Management, Financial Tools, and “Green” Project Management
- Chinese or French class, and lectures about intercultural relationships

Team Projects with experts and professionals. Each project is unique and organized with dedicated lectures and teamwork:

- Environmental and Social and Impact Assessment of a Large Dam project (Ilisu, Turkey)
- Entrepreneurship, innovations and society for energy transition
- Agro-ecology and challenges of feeding 9 billion people in the future (case studies in Europe, Africa or Asia)
- Urban Sustainable Development, an Urban workshop

Two workshops aiming to give tools to students for their future career are proposed: the professional project, professional network and preparation for interviews.

INSA Lyon program:

Environmental Management of Alternative Energy: Two weeks in Lyon in January, lectures and projects on waste management, and recycling for the Circular Economy in cities

EnvIM International Project

Students learn to work together as one team on a main project on an environmental topic, and learn from experience how to use project management tools. They have to organize a Workshop in China in December or an event in France in the end of January. This project is led by MINES ParisTech in collaboration with Tsinghua University.

- 2017 - Smart Fluxes and Big Data in Beijing for better mobility, and air and water management
- 2018 - Innovative Food Waste Management



Six-month period of training

Students have to find and complete a 6-month internship (5-month for the Single Degree Program) between June and December 2020 in a company or organization. The subject of this professional period is proposed by a company, industry, or NGO, to solve current issues it is facing related to the environment and 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's 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 this period, each student has to do research for and write a professional Thesis which will be submitted to be defended before 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 option Asia students enjoy excellent hiring rates – on average 50% before graduation - and quickly integrate into leading industrial stakeholders. All students can also benefit from ISIGE and MINES ParisTech Alumni Network to move into top-management jobs, either in France or elsewhere.

Admission

Students may have a wide variety of backgrounds in the sciences, engineering, business and economics, political science, and the environment and sustainable development. A high English proficiency is required because the classes and projects are conducted in English:

- Young graduates holding a Master's degree or equivalent degree
- Bachelor's degree with at least 3 years of professional experience in environment or connected topics.
- Penn Master's Degree students: one year of graduate courses. Contact Prof. John Keene or Dr. Yvette Bordeaux
- Tsinghua Master Degree students, contact Prof. MING Zhao (School of Environment)

The application forms and information are downloadable from our web site:

<http://www.isige.mines-paristech.fr/formations/candidater/>

The admission period opens in December each year:

- Pre-selection based on the application files – from January to beginning of April for EnvIM Asia, (earlier for students who need to apply for a scholarship), and until end of November for Option Europe
- Written test and an interview, conducted by a panel of professionals and professors, to get to know the applicant and his/her professional projects and goals, and to ensure coherence with each project and the program.
- Interviews can be held by video-conference.
- Acceptance into this program is determined by academic achievements, motivation, test and interview, and space availability

Tuitions and Fees, financing

The Tuitions and Fees for the double degree option include two round trips from Paris to Beijing, and field trips in China and France. In all cases, INSA Lyon accommodations are included.

- EnvIM Double degree: €13,000
- EnvIM Single Degree: €9,000
- Both: registration fees €800

Not included are the travel expenditures to join the program in France, accommodations in Fontainebleau and Beijing, visa fees, insurance, and subway or train tickets in Paris and Ile-de-France.

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, (except for the particular case of some Tsinghua Chinese students) and students have to contact "Campus France" in their country, see the webpages and scholarships fitting nationality and background:

<https://www.campusfrance.org/en>

Alumni Association

One main asset of this Post-Master's Program is its alumni network, through ISIGE Alumni, Mines ParisTech Alumni and Intermines. 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 two associations: **ISIGE Alumni** and **Mines ParisTech Alumni**.

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:

<http://www.tsinghua.edu.cn/publish/enven/index.html>

France - Fontainebleau and Paris:

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 (the Armade Residence in Avon for example) is 350€ to 400 €/month. It is often possible to share an apartment with other students in order to reduce costs.

Some websites where you can find information are: "Art et Métier Residence", or "Armade Residence" in Avon, These residences are close to the train and bus station and 10 minutes from the Fontainebleau Campus by bus:

<https://www.adele.org/en/residence/1728/residence-etudiante-d-armade-1728/avon>

<https://www.location-etudiant.fr/logement-etudiant/Avon-77014.html>

Websites and Contacts

<http://www.isige.mines-paristech.fr/formation/envim/>

<http://www.mines-paristech.fr/Formation/Masteres-Specialises/Masteres-Specialises-temps-plein/ENVIM/>

<https://www.facebook.com/IsigeMinesParisTech>

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