

Sustainable industrial engineering 2nd year

Master in Industrial engineering



Duration
1 year



Component
Grenoble
INP, Institut
d'ingénierie et
de management
- UGA



Language(s) of
instruction
English

Presentation

Industry is of critical importance for the global economy. Industrial engineering is the branch of engineering that is concerned with the efficient production of industrial goods as affected by elements such as plant and procedural design, the management of materials and energy, and the integration of workers within the overall system. Sustainable industrial engineering addresses the issue of sustainability of industry in three ways : from an environmental point of view, from a social and societal point of view, from an economical point of view.

Sustainable industrial engineering has myriads of application fields since it encompasses the whole value chain and lifecycle of products : from the development of new and innovative machines, products-services to the market and recyclability.

International education : Internationally-oriented programmes

International dimension

100% in English

Admission

Access conditions

To be accepted for a master 2nd year, you must hold a master 1 degree or equivalent. Your previous studies must be compatible with the master you wish to study. The recruitment and registration conditions are stated for each speciality. For the three programs in French, the choice of programme is made after admission to the master in Industrial engineering.

Candidature / Application

See Grenoble INP website : <http://www.grenoble-inp.fr/fr/formation/les-admissions>


Target

The SIE master addresses students owning a bachelor of Science or engineering or equivalent in :

- * Industrial engineering
- * Supply chain, operations management, logistics and transportation, operational research
- * Manufacturing science, product design, product development, mechanical engineering, materials

- * Science, electrical engineering
- * Computer science, information systems

Campus

 Grenoble - Doyen Gosse

And after

Sector(s)

The vocationally-oriented international programme, designed for foreign students, aims to train managers in the field of industrial engineering with a specialisation on sustainability issues relating to the product and its logistics chain.

- **Industrial engineers with sustainable impact** : the students will be able to find jobs in industrial / mechanical / production / automation / aerospace / energy / or management Engineering
- **Researchers in industry** : the students will have plenty of opportunities to carry on their studies as PhD among one of the numerous international laboratories of the SIE partners (full members or associates) and the research community in the sustainable manufacturing domain

Useful info

Contacts

Program director

Khaled Hadj-Hamou

✉ Khaled.Hadj-Hamou@grenoble-inp.fr

Program administration

Registrar's Office for the Master in Industrial Engineering

✉ genie-industriel.master.sie@grenoble-inp.fr

Course location(s) - City

 Grenoble

Program

Specifics of the program

Master Industrial Engineering (GI) Sustainable Industrial Engineering program - Semester 3

Courses and group of courses name	ECTS	Number of students
Intercultural Communication - WCUE3018	3.0	18.0
Master Thesis Tutorial - WGUC0020	3.0	18.0
Architecting and Transportation - WUE3019	1.0	41.0
Sustainable Design and Management - WCUE3018	3.0	18.0
Optional courses M3 IE (3 courses in within choice of 3 shift elements)	18.0	107.0
Advanced Economics for Industrial Engineering - M3 IE 0018	6.0	54.0
Advanced Manufacturing - DGUC0001	6.0	27.0
Integration - For Manufacturing Flexibility by Integration - M3 IE 0018	6.0	54.0
Manufacturing - Sustainable Design of a Workshop - M3 IE 0018	6.0	54.0
Product Industrialization - From Design to Manufacturing - DGUC1101	6.0	27.0
The Global Firm - DGUC1201	6.0	27.0
Lean Production - M3 IE 0018	6.0	54.0
Purchasing Management - DGUC1801	6.0	27.0
Strategy Management of the Supply Chain - DGUC1801	6.0	27.0
Business Marketing - M3 IE 0018	6.0	54.0
Methods in Tactical and Operational Supply Chain Management - DGUC2004	6.0	27.0
Sustainable Manufacturing - DGUC2201	6.0	27.0
Statistics and Optimization - DGUC2001	6.0	27.0
Inventory and Order Management for industrial systems - M3 IE 0018	6.0	54.0
Advanced Manufacturing - DGUC3000	6.0	27.0
Flow Management and Multi-Period Decision - W3UE0301	6.0	27.0
Knowledge Integration and Applications in Design - M3 IE 0018	6.0	54.0
Transport Logistics and Operations Research - W3UE0300	6.0	27.0
Modeling and Optimization in Product Development - W3UE0300	6.0	27.0

Master Industrial Engineering (GI) Sustainable Industrial Engineering program - Semestre 4 : Master Thesis based on a mission in an industrial firm or a research laboratory in France or abroad