

Product development 2nd year

Master in Industrial engineering



Duration
1 year



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



Language(s) of
instruction
French, English

Presentation

Between one and three modules of 6 ECTS are in English, depending on the programmes and the students' chosen options.

This program examines the subject from two perspectives, firstly the concepts used during product development, and secondly knowledge, both of which are essential to development and sources of innovation.

The concepts are now largely digital : specifications, CAD files, digital mock-ups, PLM systems etc. The ways of interacting with these data are continually evolving. Advanced optimisation methods are used to explore solutions in ever larger spaces and using multiple criteria.

The second perspective offers an analysis of the forms of knowledge used in design and industrialisation, ways of creating and maintaining this knowledge, methods of appropriation and exchange between experts from different professions, and specific modes related to business-to-business co-operative aspects.

International dimension

Between 1 and 3 UEs of 6ECTS are in English, according to the courses and the choices of the options of the students.

Admission

Access conditions

To be accepted for a master 2nd year, you must hold a master 1st 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 programmes 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>

And after

Sector(s)

The program leads to careers in teaching and research (private or public) with, in particular, a target of 50% of students going on to doctoral studies. Other students tend to go into industry in France or in their countries of origin, in industrial engineering careers. For the Operations management program, in the supply chain : production, procurement, logistics engineer... ; for the Product development program, in product design careers: product engineer, calculation, simulation... and lastly for the Industrial innovation program, careers in innovation : innovation project management, consultants in innovation, monitoring etc

Useful info

Contacts

Program director

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Program administration

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Course location(s) - City

📍 Grenoble

Campus

🏠 Grenoble - Doyen Gosse

Program

Specifics of the program

Master in Industrial Engineering 2nd year, Product development programme – Semester 3		
<u>Title of the modules/subjects</u>	ECTS	Teaching hours
Teaching Unit Knowledge integration and collaboration in design – WGUKNOW9	6.0	54.0
Teaching Unit Modelling and optimization in product development – WGUMODE9	6.0	54.0
Teaching Unit Research in industrial engineering – WGURESE4	6.0	30.0
Choice of advanced options for the product development programme (choose between 1 and 2 sub-elements)	6.0	64.6
Teaching Unit Product representations – 4GUP0305	6.0	107.0
Teaching Unit Integrated design: tools and methods – 5GUC0604	6.0	54.0
Teaching Unit Advanced manufacturing – 5GUC0804	6.0	54.0
Teaching Unit Innovation management – 5GUC1504	6.0	54.0
Teaching Unit Advanced product simulation – 5GUC2504	6.0	54.0
Choice of opening options for the product development programme (choose between 0 and 1 sub-elements)	0.0	0.0
Teaching Unit Advanced economics for industrial engineering – 5GUC0504	6.0	54.0
Teaching Unit iDesigner: tackling complexity by integration – 5GUC0904	6.0	30.0
Teaching Unit Industrialisation: sustainable design of a workshop – 5GUC1004	6.0	54.0
Teaching Unit Product industrialisation – 5GUC1104	6.0	54.0
Teaching Unit Total quality management – 5GUC1404	6.0	54.0
Teaching Unit Purchasing management – 5GUC1604	6.0	54.0
Teaching Unit International project management – 5GUC1704	6.0	54.0
Teaching Unit Production and the environment – 5GUC2304	6.0	54.0
Teaching Unit Strategies and organisations – 5GUC2604	6.0	54.0
Teaching Unit Industrial information systems – 5GUC2804	6.0	54.0
Optional modules (optional)	0.0	0.0
English for industrial engineering – 5GMC0218	1.5	21.0

Master in Industrial Engineering 2nd year, Product development programme – Semester 4		
<u>Title of the modules/subjects</u>	ECTS	Teaching hours
Teaching Unit Internship and research paper – WGUSTAG9	30.0	0.0