

TOUL'BOX



The essential set to ease your installation in Toulouse !

Settling down in a new city to study or complete a research program is an extremely enriching experience that can also be stressful and complicated when we don't have a single clue about the area, the mandatory formalities, the habits or the customs.

In order to ease your arrival and make your installation stress free, the University of Toulouse provides you with a personalized reception service, very complete and specifically created to allow you to easily get acquainted with your new environment and anticipate your steps at the very most.

Several packages available for international students and researchers : a welcome pack, a housing pack, a language courses pack, a airport / train station pack

A complete set of tools for the students and researchers who are looking to easily settle in Toulouse !

www.toulbox.univ-toulouse.fr  
toulbox@univ-toulouse.fr

WELCOME DESK

The new hub for all French and foreign students and researchers invited to Toulouse and the Midi-Pyrénées, created by l'Université Fédérale Toulouse Midi-Pyrénées, at 41 Allées Jules Guesde in Toulouse

To be able to study and conduct research in the best conditions requires answering a series of concerns first: to find accommodation, to move, to discover the cultural and sports activities on offer, to protect yourself healthwise and to look after yourself, to settle in a new city, a region or a country sometimes for the first time, to know how to get involved and to take initiative, to work, to obtain the administrative authorization to study in France, to know how to study with a handicap...

This new welcome project has been realized with partners such as the Prefecture of the Haute-Garonne, the CAF (housing allocations and advice) and the CROUS.

Main missions : unite services, councils and advice for integration.

http://en.univ-toulouse.fr/welcome-desk

Our two institutions, INSA & INP, joined their forces to increase their fields of expertise and excellence.

We are member of the "Université fédérale Toulouse Midi-Pyrénées".

Toulouse is the best place to study in France.

Toulouse is ranked 2nd in terms of students and is the 4th biggest city in France.

INSA Toulouse

Over 2 800 students, 8 specialities  
8 laboratories, 60 theses/year  
www.insa-toulouse.fr

INP Toulouse

6 engineering schools and 1 veterinary school  
7 000 students, 15 labs, 150 theses/year  
www.inp-toulouse.fr

Université fédérale Toulouse Midi-Pyrénées

Over 120 000 students, 15 doctoral schools  
14 higher education member institutions  
www.univ-toulouse.fr

INSA Toulouse

135, avenue de Rangueil  
31077 Toulouse Cedex 4 - France  
www.insa-toulouse.fr



MINISTÈRE DE L'ÉDUCATION NATIONALE, DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE

INSA

INSTITUT NATIONAL DES SCIENCES APPLIQUÉES TOULOUSE

INP TOULOUSE

MASTERS OF SCIENCES & TECHNOLOGIES



Toulouse

## MASTER OF SCIENCES AND TECHNOLOGIES SAFETY ENGINEERING AND MANAGEMENT

▶▶▶ INSA, INP-ENSIACET

Processing innovations to innovative products requires the control of industrial processes for their entry into market within a reasonable time and price, while providing assurance on their quality and safety. Increasingly, quality and safety requirements will also focus on the manufacturing process. All these processes involve various human, technical and financial resources, all under the influence of many external constraints - regulatory, normative, legal, societal... The conduct of such a system requires an organization to control the use of resources, as well as monitoring their commitment to ensure safety and sustainability.

The present program aims at training specialists providing answers to these new societal expectations. Moreover, this new industrial development can only be performed in an international context. Thus the Master adds lectures on French language and culture to engineering and managerial skills.

### ▶ SEMESTER 1 (M1) | 30 ECTS

Risk Engineering: risk analysis, development of safe systems, toxic risk for humans and environment, process safety, structural safety. Cultural integration, linguistics (French) and methodology.

### ▶ SEMESTER 2 (M1) | 30 ECTS

Risk management, health and safety, uncertainty management, insurance, law and regulation, communication on risk and safety, professional project and linguistics.

### ▶ SEMESTER 3 (M2) | 30 ECTS

Industrial Systems Engineering: project management, logistics and operation management, quality insurance, information systems, economy and industrial law, professional projects.

### ▶ SEMESTER 4 (M2) | 30 ECTS

Graduation internship (5-6 months) in industrial companies or in research laboratories.

Placement opportunities are varied as the topics covered in the training include design, production and operation, but also the monitoring of industrial plants.

**Contacts :** Master 1 : gilles.motet@insa-toulouse.fr  
Master 2 : philippe.duquenne@ensiacet.fr

**Web site :** [www.insa-toulouse.fr/en](http://www.insa-toulouse.fr/en) ▶ International Relations  
▶ Studying at INSA Toulouse ▶ Programmes in English

**Cost :** 9,000€/year or 5,000€/year if partnership with home university or n+i network or for students with excellent academic records

**Language :** English | French

**Duration :** 1 or 2 years  
First three semesters : mainly lectures, tutorials and lab work  
Fourth semester : internship

**Required level :** Bachelor of Science, Engineering degree, 4 years of higher education

**Degree awarded :** Master of Sciences and Technologies

**Deadline for application :** June 30<sup>th</sup>

## MASTER OF SCIENCES AND TECHNOLOGIES WATER ENGINEERING AND WATER MANAGEMENT

▶▶▶ INSA, INP-ENSEEIH, INP-ENSAT

Objectives of the master are to provide students with shared theoretical and practically-oriented knowledge in the field of water engineering and water management.

Students in the program should acquire the ability to design water engineering projects and to realize these projects efficiently in line with the principles of sustainability.

The master focuses on chemical engineering applied to unit operations of water treatment and water sciences (aquatic system and its preservation). The purpose of the lectures is concerned with biological and chemical reactors for pollution removal, unit operations of separation for the high quality water production (membrane separation, adsorption...), hydrology and ecology for the management of aquatic system.

In addition, students will follow courses on international regulations, environmental management and project management to be able to face water-related societal, governmental and industrial stakes.

Along the two years of formation, the student will have strength interactions with industrial partners and research laboratories.

### ▶ SEMESTER 1 (M1) | 30 ECTS

Scientific basis, cultural integration, linguistics and methodology.

### ▶ SEMESTER 2 (M1) | 30 ECTS

Core courses on waste water treatment and waste water management including energy and mass valorisation.

### ▶ SEMESTER 3 (M2) | 30 ECTS

Water production and water resource management including desalination and water reuse.

### ▶ SEMESTER 4 (M2) | 30 ECTS

Graduation internship (5-6 months) in academic laboratories or in industrial companies.

The 2-year program prepares future researchers and executives for international careers in the sectors of water engineering whatever the industrial sector or environmental consulting.

**Contacts :** guigui@insa-toulouse.fr | debenest@imft.fr

**Web site :** [www.insa-toulouse.fr/en](http://www.insa-toulouse.fr/en) ▶ International Relations  
▶ Studying at INSA Toulouse ▶ Programmes in English

**Cost :** 9,000€/year or 5,000€/year if partnership with home university or n+i network or for students with excellent academic records

**Language :** English

**Duration :** 2 years  
First three semesters : mainly lectures, tutorials and lab work  
Fourth semester : internship

**Required level :** Bachelor of Science, Engineering degree, 4 years of higher education

**Degree awarded :** Master of Sciences and Technologies

**Deadline for application :** Session 1: December 1<sup>st</sup>  
Session 2 : April 8<sup>th</sup>



## MASTER OF SCIENCES AND TECHNOLOGIES IN FLUIDS ENGINEERING FOR INDUSTRIAL PROCESSES

▶▶▶ INSA, INP-ENSEEIH, INP-ENSIACET

This education program is focused on Fluids Engineering for Industrial Processes. Applications are related to fluid flows in petroleum engineering, chemical engineering, energy transformation... The purpose of the lectures is concerned with the physics and modelling of transport phenomena in multiphase flows (bubbles, drops, granular media, emulsions and foams). Exercises and practical training complement advanced courses on turbulence, coupling chemical reactions and flows, heat and mass transfer. The students will be trained to work with Computational Fluid Dynamics tools (commercial codes but also research and industrial software's). Along the two years of formation, the contact with our industrial partners (TOTAL, AREVA, CEA, EDF ...) is strengthened by research and industrial projects (8 + 6 weeks) and a long internship (5 months).

### ▶ SEMESTER 1 (M1) | 30 ECTS

Scientific basis, cultural integration, linguistics and methodology.

### ▶ SEMESTER 2 (M1) | 30 ECTS

Core courses on fluids mechanics, heat and mass transfer and engineering applications.

### ▶ SEMESTER 3 (M2) | 30 ECTS

Multiphase flows, heterogeneous media, computational fluids mechanics.

### ▶ SEMESTER 4 (M2) | 30 ECTS

Graduation Internship (5-6 months) in academic Laboratories or in Industrial companies.

The 2-year program prepares future researchers and executives for international careers in the sectors of petroleum, nuclear and chemical engineering.

**Contact :** nicolas.dietrich@insa-toulouse.fr

**Web site :** [www.insa-toulouse.fr/en](http://www.insa-toulouse.fr/en) ▶ International Relations  
▶ Studying at INSA Toulouse ▶ Programmes in English

**Cost :** 9,000€/year or 5,000€/year if partnership with home university or n+i network or for students with excellent academic records

**Language :** English | French

**Duration :** 1 or 2 years  
First three semesters : mainly lectures, tutorials and lab work.  
Fourth semester : internship.

**Required level :** Bachelor of Science, Engineering degree, 4 years of higher education

**Degree awarded :** Master of Sciences and Technologies

**Deadline for application :** Session 1: December 15<sup>th</sup>  
Session 2 : April 15<sup>th</sup>



## MASTER OF SCIENCES AND TECHNOLOGIES IN ELECTRONICS FOR EMBEDDED APPLICATIONS

▶▶▶ INSA, INP-ENSEEIH

This degree targets the field of electronic systems for embedded applications and communications (ESECA). The courses focus on the design of integrated, RF circuits, antennas and digital signal processing and image. The fundamental teachings relate the basics of signal theory, signal processing, electromagnetism, and circuit theory and are based on project-oriented learning.

Lessons are delivered within 24 months of training, since students are required to work on research departments from our industrial partners and will be welcomed in training on production sites or in laboratories of research and development.

### ▶ SEMESTER 1 (M1) | 30 ECTS

Scientific basis, cultural integration, linguistics and methodology: modular training in analogue and digital electronics, microwave and signal processing.

### ▶ SEMESTER 2 (M1) | 30 ECTS

Core courses in IC design, microwave, signal processing.

### ▶ SEMESTER 3 (M2) | 30 ECTS

Advanced courses in IC design, microwave & signal processing.

### ▶ SEMESTER 4 (M2) | 30 ECTS

Graduation Internship (5-6 months) in academic Laboratories or in Industry.

**Contact :** etienne.sicard@insa-toulouse.fr | julien.perchoux@enseeih.fr

**Web site :** [www.insa-toulouse.fr/en](http://www.insa-toulouse.fr/en) ▶ International Relations  
▶ Studying at INSA Toulouse ▶ Programmes in English

**Cost :** 9,000€/year or 5,000€/year if partnership with home university or n+i network or for students with excellent academic records

**Language :** English | French

**Duration :** 1 or 2 years | Integration package through [www.nplusi.com](http://www.nplusi.com)  
First three semesters : lectures, tutorials, lab work  
Fourth semester : internship

**Required level :** Bachelor of Science, Engineering degree, 4 years of higher education

**Degree awarded :** Master of Sciences and Technologies

**Deadline for application :** May 1<sup>st</sup>

