Masters of Science

MS C  GREEN CHEMISTRY AND PROCESSES
FOR BIOMASS / GREEN CAP (BY INP-ENSIACET & INSA)
Presentation
By combining the different disciplines Green chemistry, Catalysis, (Bio) Processes, and Formulation, this master aims at providing with the essential tools to develop clean and safe processes involved in the new emerging fields of agribusiness.

Objectives
Develop or improve synthesis route using clean technologies, including catalysis. Master alternative methods in green chemistry. Design and pilot ecofriendly processes. Master the main transformations of renewable resources with a biorefinery approach. Assess and take into account the environmental impacts associated with (bio) chemical conversions.

MS C  FLUIDS ENGINEERING FOR INDUSTRIAL PROCESSES
(BY INP-ENSEEIHT, INP-ENSIACET & INSA)
Presentation
Multiphase flows are of major importance for modelling the behaviour of industrial processes. Advanced courses on turbulence, coupling chemical reactions and flows, heat and mass transfer are complemented by exercises and practical training. The students will be trained to work with Computational Fluid Dynamics tools.

Objectives
The holder of this master degree is able to develop a research or engineering program by integrating the various scientific and technologic constraints related to fluids engineering and industrial applications. Build a scientific pathway including modeling and simulation to answer a question or a need.

MS C  WATER ENGINEERING AND WATER MANAGEMENT *(BY INP-ENSEEIHT & INSA)*
Presentation
Knowledge of chemical engineering for water treatment processes.
Knowledge of hydrology and hydrogeology. Risks management studies. Basic knowledge in hydrology or urban water distribution networks.

Objectives
To design new water processes. To develop integrated management of water resources. To design water distribution system in urban environment. To develop multidisciplinary skills for water resources and water treatment.
MSc AEROMAT-INNOVATION  
( BY IMT MINES ALBI )

Presentation
AeroMat-Innovation is a master program at the crossroads of aerospace materials design, manufacturing & innovation management, proposed in partnership with Telecom-Ecole de Management (2 semesters in IMT Mines Albi, 1 semester in TEM, 1 internship semester). Courses are delivered by expert international teaching staff closely related to research and industry.

Objectives
By offering a threefold competence in material science and mechanical engineering, aerospace engineering and innovation management, Aeromat-Innovation master program will allow students to apprehend the industrial sector of aeronautics and space in all its technical, economic, organizational dimensions and regulatory issues, and understand the strategies and methodologies specific to innovation management.

MSc AEROSPACE ENGINEERING  
( BY ISAE-SUPAERO )

Presentation
The Master of Science in Aerospace Engineering is a two-years program fully taught in English. It covers a broad spectrum of knowledge that include "Advanced aerodynamics and propulsion", "Aeronautical and space structures", "Aerospace systems and control", "Embedded systems", "Space systems" and "Systems engineering". This Master engages students to tackle diverse aspects of aerospace engineering: from design to operation of products and systems as well as offering them the opportunity to gain invaluable experience in a research organization or an aerospace company in a multinational environment.

Objectives
To give students competences in engineering science, technology and design related to aeronautics and space. To prepare future engineers to easily and efficiently work on aeronautical systems, space systems and their application, with emphasis on the complete life cycle of the system.
MSc AEROSPACE SYSTEMS NAVIGATION AND TELECOMMUNICATIONS / AS-NAT

**Presentation**
Aerospace Systems have gained much worldwide attention due to a significant increase in applications using GPS for positioning and navigation. This international enthusiasm is confirmed by the worldwide development of other global and regional satellite-based navigation systems.

**Objectives**
Global Navigation Satellite System, defines a satellite-based system that allows autonomous positioning and navigation for a suitably equipped user in all locations and at all times. The MSc AS-NAT offers an advanced education in Satellite-based Positioning and Space Telecommunications. It aims to train students with a focus on research and development for the steadily growing GNSS industry.

MSc ELECTRONIC SYSTEMS FOR EMBEDDED AND COMMUNICATING APPLICATION / ESECA

**Presentation**
The Master of Science ESECA is designed for students and young scientists interested in pursuing a career in research, development & innovation in the field of Embedded Electronic Systems, Antenna & RF systems, Signal & Image processing, Power and Energy-Efficient autonomous systems.

**Objectives**
To design electronic embedded systems. To design communicating systems in the radiofrequency domain. To Design power management for embedded systems. To develop signal and image processing in the context of communications and aeronautics.

MSc AEROSPACE - INTERNATIONAL AIR TRANSPORT OPERATIONS MANAGEMENT

**Presentation**
The MSc in IATOM has been designed to emphasise the application of up-to-date engineering and management concepts or methods of the aeronautical and aviation industry.

**Objectives**
It provides graduates with in-depth knowledge in aeronautical engineering, airlines operations, aeronautical project management and technology management, to be able to meet the aeronautical industry demands in terms of the innovative engineers they need to strengthen and develop their business.

Masters of Science

AGRICULTURE & FOOD SCIENCE

MSc AGROFOOD CHAIN (BY INP-ENSA)

**Presentation**
Knowledge of agrofood value chains from the field to the fork. Knowledge of issues related the development of sustainable agrofood chains in the current context of economic, demographic, food and ecological transitions. Multidisciplinary analysis (agronomy, social, ecological and food sciences) and multicriteria evaluation of complex agrofood systems. Case studies and problem solving approach. Research and project management.

**Objectives**
To understand the functioning of agrofood chains as complex systems. To diagnose problems related to agricultural production, food transformation and the organization of value chains. To design innovative and sustainable solutions. To work in a team to elaborate and manage research and development projects.

In partnership with ENSFEA.
MSc ELECTRICAL ENERGY SYSTEMS * / EES
( BY INP-ENSEEIHT )

Presentation
Knowledge of energy production, its storage, conversion, transportation and consumption. Knowledge of power electronics, electrodynamic and mechatronics, new technologies of energy, energy system control, diagnostic and effectiveness management.

Objectives
To design power electronic systems. To design electromechanical converters. To design energy management for electrical systems (multi-sources and multi-loads). To develop control and diagnostic strategies (sensorless and wireless) for smart actuators, smart grids, and smart independent systems.

MSc INDUSTRIAL & SAFETY ENGINEERING * / ISE
( BY INP-ENSIACET & INSA )

Presentation
The aim of the MSc ISE is to train specialists capable of designing and developing new products, constantly integrating cost, delay, compliance and safety constraints into this process.

Objectives
At the end of the degree, the student will be able to manage the quality and the risks of technological systems (products and facilities) relating to their specification, their design, their implementation, their manufacturing and their operation, and to provide insurance of the actual quality and risk control in a legal, economic and social environment.

MSc MANAGEMENT OF INTERNATIONAL LEAN AND SUPPLY CHAIN PROJECTS / MILES & SCALE
( BY IMT MINES ALBI )

Presentation
MILES 4-semester program has been designed by IMT Mines Albi in partnership with Toulouse Business School around three disciplines: supply chain management, lean management and project management. It adopts a professional approach by incorporating four international professional certificates. Master MILES’ intake is every month of January. For students holding a 4-year bachelor degree or a 3-year degree plus 3 years of professional experience, this program is also available in 3 semesters, delivering the MSc SCALE, accredited by the “Conférence des Grandes Ecoles” (intake in September).

Objectives
Master MILES and SCALE aim at providing a competitive edge to students and young professionals willing to rapidly take up management positions in the fields of supply chain, operations, lean and project management, in a global, multicultural and constantly evolving business environment.
PHARMACEUTICAL ENGINEERING

MSc ADVANCED PHARMACEUTICAL ENGINEERING / ADPHARMING

( BY IMT MINES ALBI )

Presentation
AdPharming master program offers a complete training in advanced pharmaceutical engineering. It provides essential knowledge and know-how in international pharmaceutical regulations, process engineering, powder technology, and way of preformulating and formulating innovative dosage forms from candidate drug selection. It allows to bring innovative medicines successfully to the market, and to optimize the development times and costs.

Objectives
AdPharming aims at developing a new kind of leader with a global high-level training for R&D, drug production, quality management, lean management, logistics and supply chain, in the field of pharmaceuticals, cosmetics, biotechnology...

PROCESS ENGINEERING

MSc BIOMASS AND WASTE FOR ENERGY AND MATERIALS / BIWEM

( BY IMT MINES ALBI )

Presentation
Master BiWEM provides a strong theoretical and practice-oriented specialized knowledge in the field of biomass and waste processing. The Do-It-Yourself Learning of Master BiWEM, under the face-to-face supervision of expert practitioners and collaboration with the peers, combined with the multi-faceted learning experiences (all together, 35% of the classes are devoted to practice) prepare students to be at the forefront of decision-making in the field of Waste and Biomass Valorization to face tomorrow's challenges.

Objectives
Students in the program acquire the ability to design economically viable biological or thermochemical processes for the conversion of biomass and waste into new materials or energy carriers, within a sustainable development approach.
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* (BY INP-ENSEEIHT, INP-ENSIACET & INSA *)

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**MSc WATER ENGINEERING AND WATER MANAGEMENT**
* (BY INP-ENSEEIHT & INSA *)

**Presentation**

**Objectives**
To design new water processes. To develop integrated management of water resources. To design water distribution system in urban environment. To develop multidisciplinary skills for water resources and water treatment.
L’ACCUEIL
WELCOME DESK

The new hub for all French and foreign students and researchers invited to the University of Toulouse.

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• Help to obtain administration authorization to study in France
• Help to settle
• Help to look for accommodation
• Facilities to move in the city
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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.

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

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

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The portal Toulouse Tech it easy is dedicated to international students and offers information to help them with their projects.

Students can create an account on the portal and apply online for one or more programmes of their choice.

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