

GROUPE ECOLE CENTRALE



GROUPE DES ÉCOLES CENTRALE

Des formations d'excellence de niveau international





Members

- CentraleSupélec
- Centrale Lyon
- Centrale Nantes
- Centrale Lille
- Centrale Méditerranée
- Centrale Beijing
- Centrale School of Engineering
Mahindra University
- Centrale Casablanca

Founded in December 1990.

Same values, same missions and same vision of the future.

We train multi-disciplinary general engineering, Master and PhD students capable of responding innovatively to the challenges of our society.

In France:

2,100 engineering program graduates every year

800 permanent teaching and research staff

2,000 external contributors

Cooperación internacional

- Cada año:
 - 2500 *estudiantes extranjeros entre los 5 campus*
 - 500 *estudiantes de las EC en las universidades colaboradoras*
 - 2000 *prácticas en el extranjero*
- Y
 - 80 profesores invitados
 - 90 universidades colaboradoras
- Posibilidades:
 - *Doble titulación Ingénieur/Master*
 - *Master degree*
 - *Créditos ECTS y prácticas de investigación en los laboratorios de las EC*
 - *Doctorados: invitados y cotutelas*

Cooperación internacional

Esquemas de intercambios



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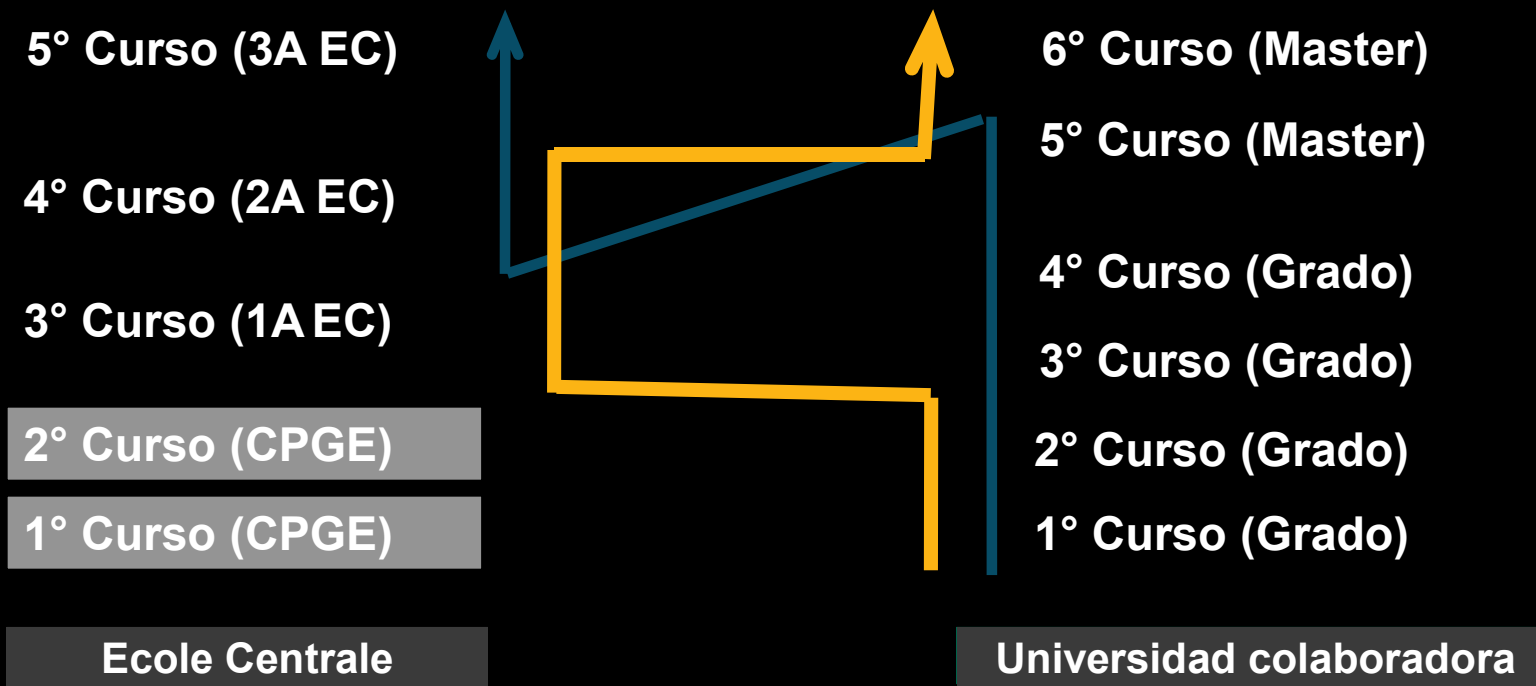
Des formations d'excellence de niveau international

Esquema de la doble titulación

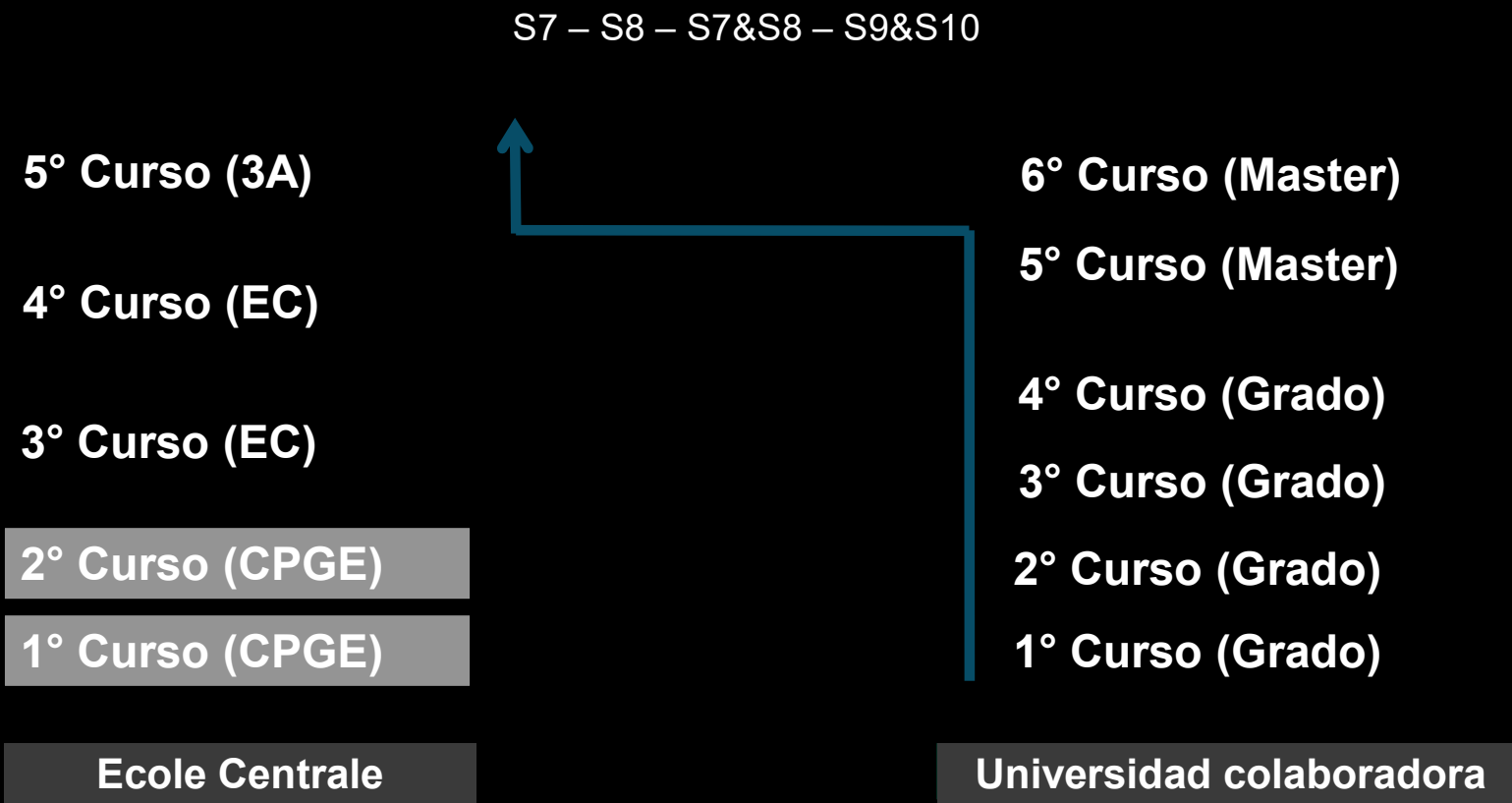
Ingénieur EC + Ingeniero de la Universidad colaboradora

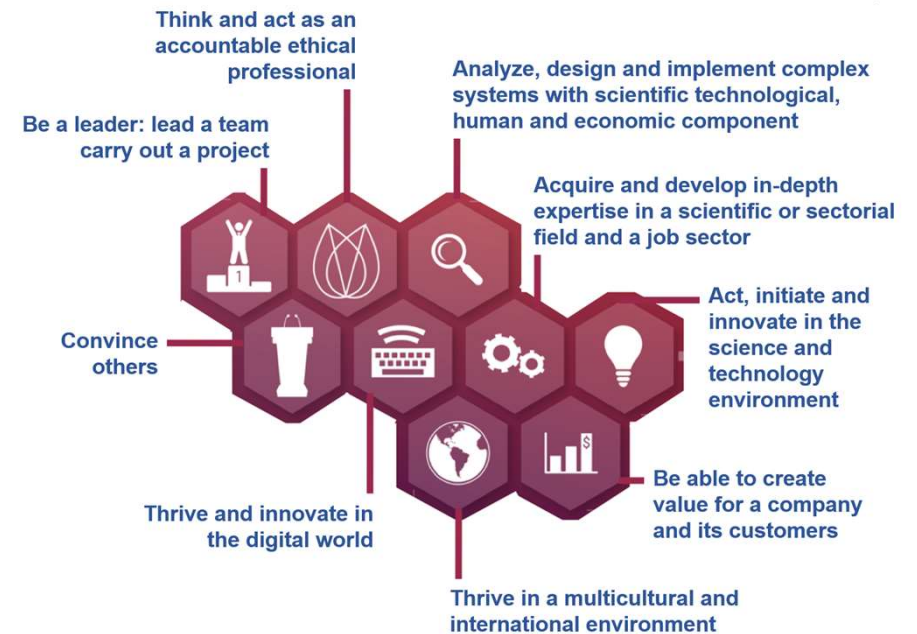
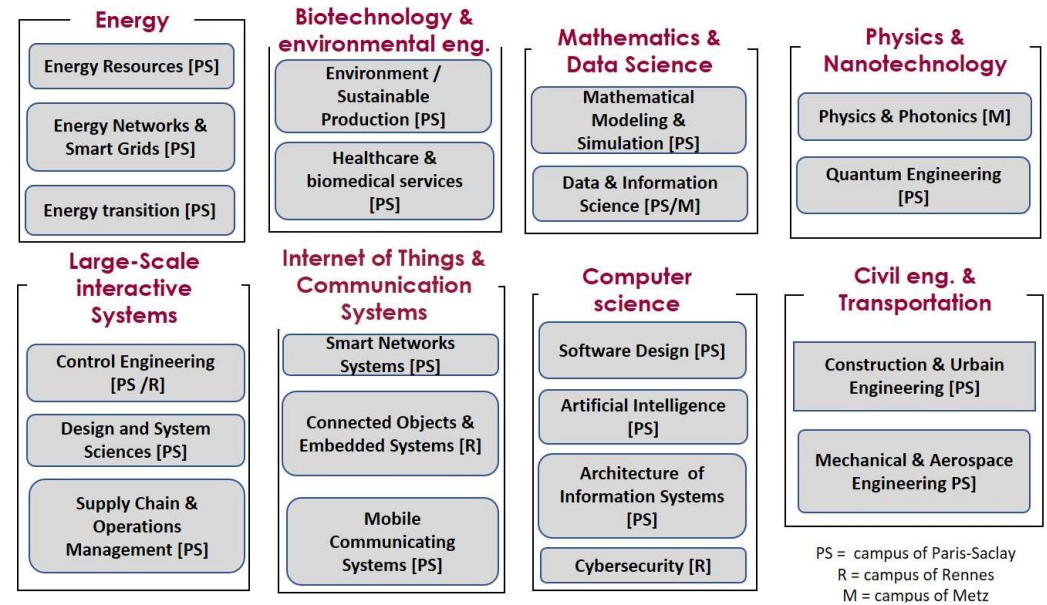
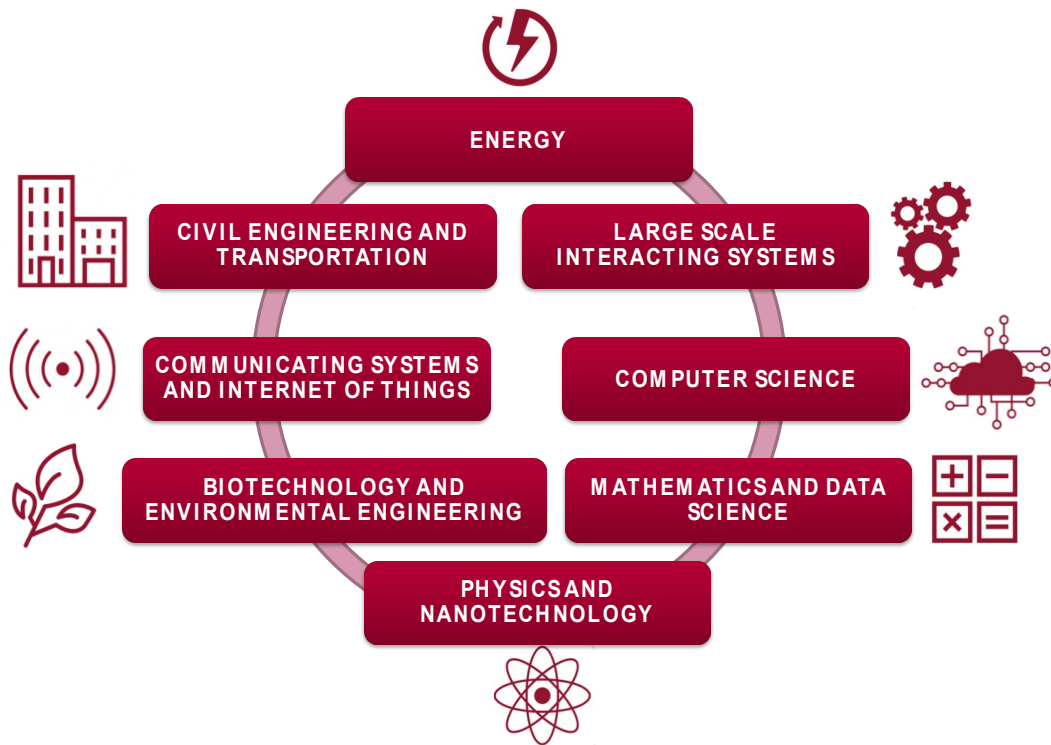
Complementaridad : Generalista+ Especialista

Bi-cultural: 2 años en el extranjero



Intercambios en una Ecole Centrale

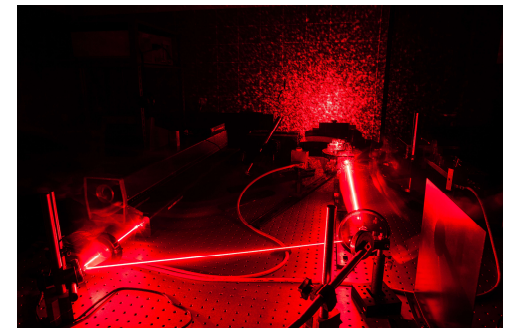






Currículo ingeniero especializado
intercambio o doble título nivel master (2A+3A)

- Computer Science (Metz) <https://www.centralesupelec.fr/en/Regional-programs/computer-engineer>
- Cyberseguridad (Rennes) <https://www.centralesupelec.fr/en/Regional-programs/engineer-specializing-in-cybersecurity>
- Sistemas digitales (Rennes) <https://www.centralesupelec.fr/en/Regional-programs/digital-systems-engineer>
- Ingeniería eléctrica : energía y sistemas (Rennes) <https://www.centralesupelec.fr/en/Regional-programs/energy-engineer>
- Electrónica (Rennes y Paris Saclay) <https://www.centralesupelec.fr/en/Regional-programs/electronics-engineer>
- Ingeniería física: sistemas cuánticos, fotónica y nanotecnologías (Metz)
<https://www.centralesupelec.fr/en/Regional-programs/engineer-specializing-in-physics>



Over 20 engineering programme specialisations on offer

The engineering programme leads to the award of the highly-sought after '*diplôme d'ingénieur*' equivalent to a Master of Science and Engineering.

Sustainable Energy Production and Management



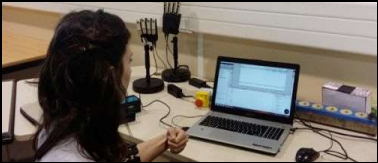
- Energy Production & Management
- Renewable Energies and Grid Integration
- International Small Wind Turbine Contest
- Energy Control & Management

Civil Engineering & Sustainable Habitats



- Civil Engineering and Sustainable Construction
- Low tech Engineering – sustainable housing techniques
- Engineering Science for Housing & Urban Environment

Computer Science for Intelligence, Interaction and Digital Perception



- Computer Science for Information Systems
- Computer Science for Artificial Intelligence
- Computer Science for Virtual Reality
- Data Analysis & Application in Signal and Image Processing

Sciences and Engineering for Modelling and Innovation



- Mathematics & Applications
- Advanced Modelling and Analysis of Structures
- Digital Sciences for Life Sciences & Healthcare

Engineering the Industry of the Future



- Industrial Engineering
- Innovative and Sustainable Products & Processes
- Mechanical Engineering for Materials & Manufacturing
- Robotics

Sustainable Transport Technologies



- Aeronautics
- Propulsion & Transport
- Ocean: Hydrodynamics & Marine Engineering

Doctorate Specialisation – Applied Research and Innovation (3rd year)





Specializations & Masters

- Transport and Traffic engineering
- Energy engineering
- Civil and Environmental engineering
- Aeronautical engineering
- Computer science and communication engineering
- Bioengineering and nanotechnologies
- Mathematics and Finance
- Materials Science
- Electrical engineering
- Industrial engineering
- Ocean, Atmosphere, Climate
- Mechanics
- Environmental risk
- Health engineering
- Applied maths & statistics



6 CNRS laboratories (National Scientific Research Center)

- Laboratory of Fluid Mechanics and Acoustics (LMFA)
- Laboratory of Tribology and Systems Dynamics (LTDS)
- Lyon Nanotechnology Institute (INL)
- Ampère Laboratory (Electrical Engineering)
- Camille Jordan Institute (ICJ : Mathematics)
- Lyon Research Center for Images and Intelligent Information Systems (LIRIS)



4 Axes of specialization in 8 TRACKS

SUSTAINABLE CONSTRUCTIONS & ENERGY

- Constructions and sustainable materials
- Energy and smart grids

SMART SYSTEMS AND ENVIRONMENTS

- Smart systems and advanced networks
- Future networks and smart environments

INDUSTRY FOR THE FUTURE

- Smart industries
- Sustainable conception and productions

FROM STRATEGY TO DATA MANAGEMENT

- Data science and Artificial intelligence
- Modelisation and industrial architecture (IT)

Involved in 6 Laboratories



*Fundamental informatics
Computer Engineering
Automatic Control
Signals*



*Micro-Nano-Technologies
Functional Electronics
Acoustics & Optoelectronics
Microfluidics*



*Electrotechnics
Power Electronics*



*Catalytic
Process Engineering
Solid chemistry*



CU3E

*Civil Engineering
Material Sciences
Mechanics*

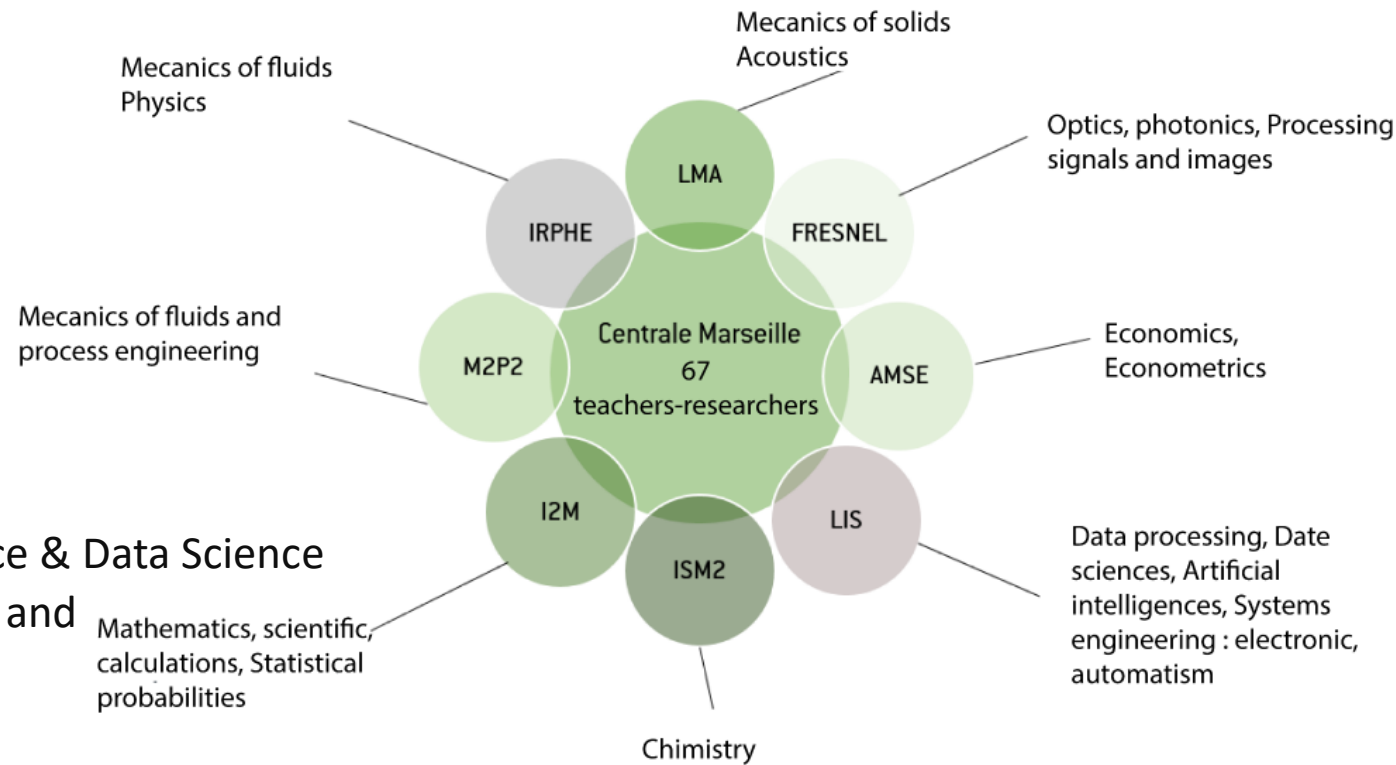


Fluid Mechanics



Engineering Specializations :

- **DIGITAL-e** → Consulting, Computer Science & Data Science
- **GREEN** → Chemistry, process engineering and sustainable processes
- **MECA** → **Mechanics**
 - Modelization of Structural and Material Mechanics,
 - Fluids : energy, transport, environment, health,
 - Marine Engineering
- **DDEFI** → Mathematics, Management, Economics & Finance
- **PICSEL** → Photonics, Image, Signal and Communication
- **CLiMaTHs** → Mathematics and Modeling for Climate, Earth, Man



Complex System Engineering (Master in English)

Environmental Engineering
Biomedical Engineering



Vida del Estudiante

Clubes, asociaciones

Alojamiento



Clubes y asociaciones de alumnos: asociaciones culturales, clubes deportivos, etc.

Experiencia profesional (management):

- *Ingénieurs sans Frontières (Ingenieros sin fronteras)*
- Junior Entreprise
- Salón de empresas

Deportes y clubes:

- Jazz, Ajedrez, Teatro, Cine, Baile
- Vela, Rugby, Futbol, Baloncesto, Artes marciales, etc.
- Le challenge

Clubes Internacionales





Alojamiento: residencias estudiantes

Prioridad para alumnos internacionales

- 10 minutos andando del campus
- Habitaciones individuales o dobles con cocina compartida o estudio
- Conexión a Internet
- Gimnasio
- Lavandería autoservicio
- Y mucho más



Conclusión



- Dependiendo de tu movilidad, obtienes un plan de estudios multidisciplinario que te ayuda a relacionarte con especialistas y brinda una visión general amplia de los desafíos complejos futuros (sostenibilidad, digitalización, evolución climática, gestión de la energía),
- Cursos científicos de alto nivel en todos los campos de la ciencia, la tecnología y la ingeniería.
- Acceso a las ciencias sociales, lenguas extranjeras y humanidades
- Capacitación en habilidades blandas: cursos de liderazgo, gestión e innovación, proyectos en equipo, posible participación en clubes de estudiantes
- Networking corporativo: prácticas, ferias de trabajo, conferencias, proyectos, mesas redondas
- Mejora constante en el dominio del francés: 300 millones de francófonos en el mundo (muchos de ellos en África, que es el continente de más rápido crecimiento)

Bienvenue en France !



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¿Preguntas?

