Developing talents to promote a creative and responsible chemistry in an international context

> École européenne d'ingénieurs ecpm

de chimie, polymères et matériaux



The ECPM, a department of the

University of Strasbourg

فغ ک ک ک

University of excellence 35 departments & institutes 70 research centers 57 000 students 20% international students 5 300 academic & administrative staff





5 centuries of excellence

1538

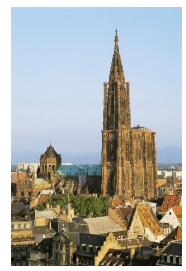
Origins of the University of Strasbourg

Since the 17th century

Becoming a strong intellectual center in Europe, the University experienced **three centuries of bicultural development** while being moved back and forth between France and Germany.

2009

After being divided into three universities (1968), rebirth of the University of Strasbourg, a pioneering example of merging universities in France.





A wide range of training programs covering all disciplines

ART, LITERATURE, LANGUAGES, VISUAL ARTS

Performing Arts Cross-Culturality and Languages Foreign Languages World Literatures and Civilizations Applied Foreign Languages French Language and Literature Music Language sciences

LAW,

ECONOMICS, MANAGEMENT, POLITICAL AND SOCIAL SCIENCES

Economic & Social Administration, Accountancy, Management Public Administration, Local and regional authorities Business Communication Law

Economics & Management Mathematics & Economics Political Science

SOCIAL SCIENCES AND HUMANITIES

Archeology History

Art history Geography Urban planning Journalism Philosophy Psychology, educational sciences Social Sciences Physical Activity Studies Catholic Theology Protestant Theology

SCIENCES, TECHNOLOGY, HEALTH

Chemistry Materials Mathematics Computer Sciences Physics Engineering Science Life Sciences Biotechnology Earth sciences & environment

4

4 High level well-equipped campuses

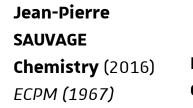
100 buildings on **4** campuses : Central, Medicine, Illkirch, Cronenbourg





A research actor at international level

5 Nobel prizes in Chemistry / Medicine in activity



Martin KARPLUS Chemistry (2013) **Jules HOFFMANN** Physiology / Medicine (2011)

Richard SCHROCK Chemistry (1985)









Jean-Marie LEHN

Chemistry (1987)





1 Kavli prize: Thomas EBBESEN / Nanosciences (2014) 4 CNRS Gold medals (French National Centre for Scientific Research) The ECPM, an international engineering school



Department of the University of Strasbourg ~450 students 20% international students 40 teachers-researchers 6 research laboratories

Accredited by the Commission des Titres d'Ingénieurs »

Engineering degree is ISO Constitute Annotecentrication 9001 certified since 2019



🧼 ecpm









The ECPM: **4 training courses** 6 research laboratories Established in 1919 Connected to research Connected to industry Open to the world

International Integrated Preparatory Cycle (Chem.I.St) -> initial general scientific training Chemistry Engineering Programme ChemBioTech Engineering

Chemistry and Circular Economy of Plastic Materials -> apprenticeship engineering program

9

ecpm

Programme

Specificities of the engineering school

A French Engineer is trained in a « Grande école » :

-specialised higher education institution (chemistry, business, political sciences...)

-Selective recruitment process

Engineer = scientist with managerial / executive role



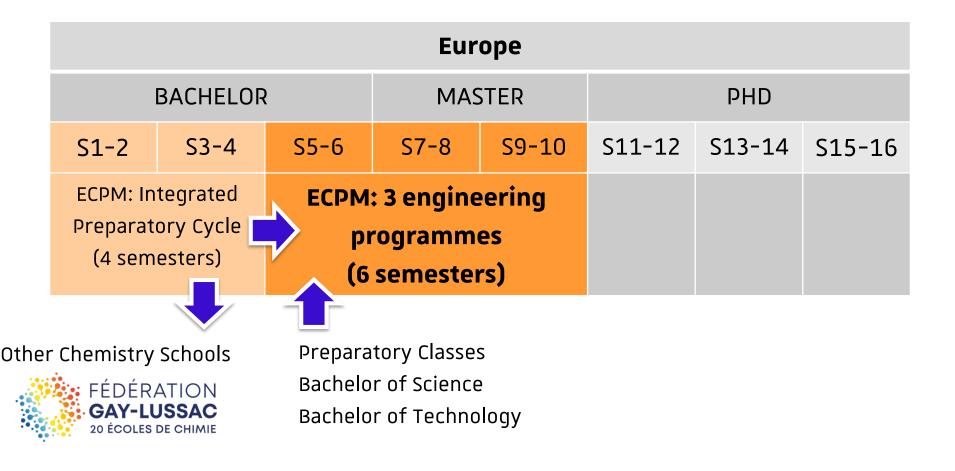
Specificities of the engineering school

CONNECTED	
TO THE	

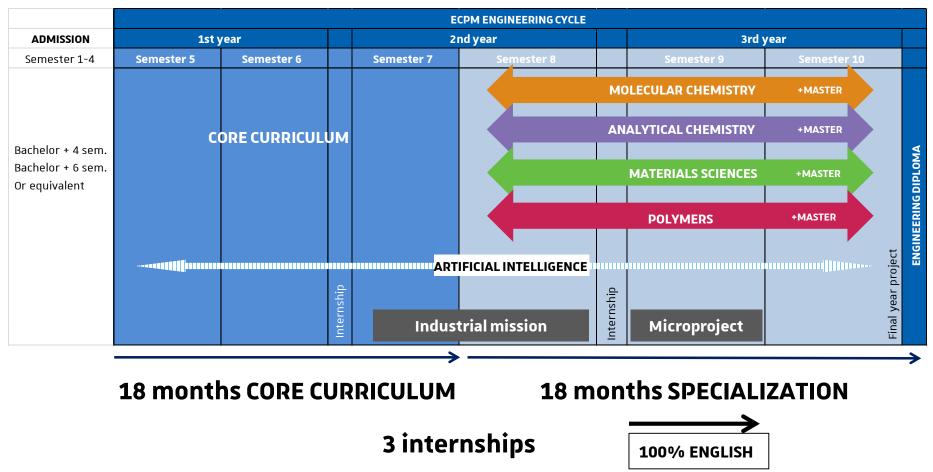
Industrial partners Compulsory internships Student-company projects Lectures by industry experts A strong alumni network...

OPEN	
TO THE	20% of foreign students (25 nationalities)
WORLD	Courses taught in English/German; French lessons for
	foreign students
	Numerous exchange possibilities for our students
	Interculturality

Study organisation

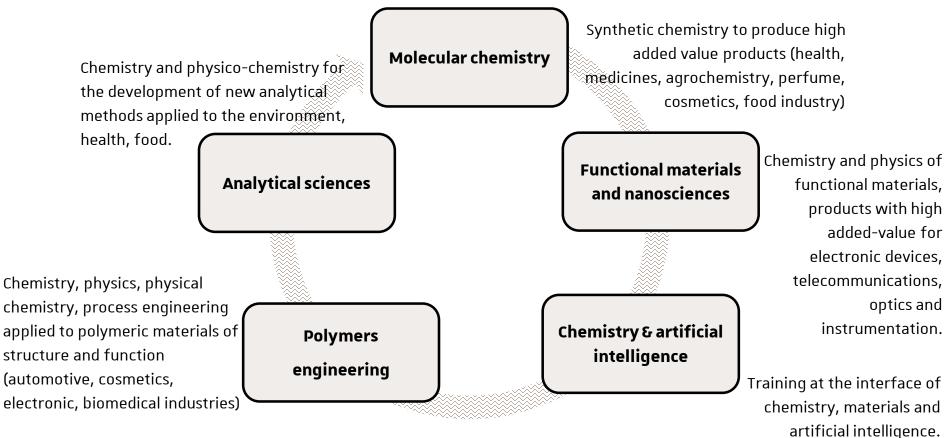


• Chemistry engineering programme (~100 students)



 ChemBioTech engineering programme (~25 students) similar organization, without specialization

Chemistry engineering programme: 5 specialisations



ChemBioTech engineering programme

14

🕨 ecpm

esbs Université de	de biotechnologie de Strasbourg	Chemistry & biotechnology	Interface between chemistry and biotechnology in production, research, innovation and development in the health and environment sectors.

Chemistry and circular economy of plastic materials (~15 students)

- Starting in 2024-2025
- In collaboration with Polyvia formation Grand-Est



- Circular economy of plastics is an urgent question for industry (400 million tons of plastic waste per year, 9% recycled)
- Apprenticeship over 3 years
 - 1st year: 21 weeks courses + 31 weeks in the company
 - 2nd year: 21 weeks courses + 31 weeks in the company
 - 3rd year: 12 weeks courses + 40 weeks in the company
- Scientific teaching: engineering macromolecular sciences, polymer chemistry, recycling process, analytical chemistry...
- Professional training and English

15

ECPM welcomes exchange and double-degree students

BACHELOR		MASTER		PHD			
S1-2	S3-4	S5-6	S7-8	S9-10	S11-12	S13-14	S15-16
		ЕСРМ					

>>> 1 year: Simple Exchange at the Master level

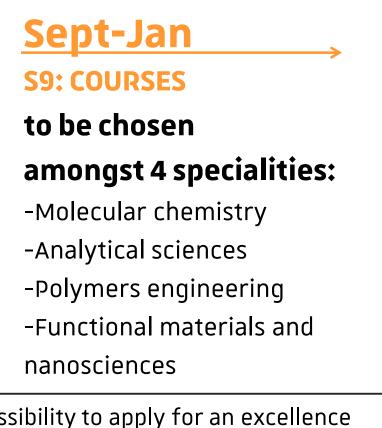
Semester 9 (courses, 100% in English) & semester 10 (research)

BACHELOR		MASTER		PHD			
S1-2	S3-4	S5-6	S7-8 S9-10		S11-12	S13-14	S15-16
		ЕСРМ					

>>> 2 years: Double diploma

Semesters 5 to 8 or Semesters 7 to 10 (requires B2 level in French)

Your stay at ECPM: 1 or 2 semesters



Feb-July S10: INTERNSHIP in an ECPM-laboratory

Possibility to apply for an excellence scholarship (5 months)

The internship is paid (if > 8 weeks) ~600 €/month

4 training courses 6 research laboratories

The ECPM:

5 associated to CNRS and 1 to INSERM ~280 researchers

~150 PhD students

Department of analytical sciences (DSA)

Department of inorganic materials chemistry (DCMI)

Laboratory of molecular innovation & applications (LIMA)

Institute for chemistry and processes for energy, the environment and health (ICPEES)

> Institut Charles Sadron -> polymer chemistry

> > TY 1. 1

Biomaterials & Bioengineering

23

🕨 ecpm

Department of analytical sciences (of the Institut Pluridisciplinaire Hubert

Curien) || https://iphc.cnrs.fr/en/research/

4 research teams

- Develop new methodologies of separation and analysis for the complete characterization of the structures of molecules
- Study the specific interactions brought into play by ions, molecules and biomolecules in supramolecular complexes.

Department of inorganic materials chemistry (of the Institute of Physics and Chemistry of Materials of Strasbourg) || https://www.ipcms.fr/en/home/

3 research teams

- Prepare inorganic materials and hybrid materials for applications in the fields of magnetism, optics, biomedicine and photovoltaics.
- Produce inorganic layers combined with organic molecules, grafted nano-oxides, thin-layer oxides or oxides intertwined with polymers.

Laboratory of molecular innovation & applications ||

https://lima.unistra.fr/en/

11 research teams

 develop innovative methods dedicated to molecular synthesis (chirality, glycochemistry, fluorine chemistry, radical chemistry) to validate new therapeutic strategies

Institute for chemistry and processes for energy, the environment and

health || http://icpees.unistra.fr/en/welcome-to-icpees/

8 research teams, 3 departments

- Catalysis and materials: electrochemistry and energy conversion ; photocatalysis and photoconversion ; energy & fuels; nanomaterials, catalysis & interfaces
- Molecular chemistry & analytics: organic chemistry for materials, biology and optics; physical-chemistry of the atmosphere
- Polymer engineering: functional polymers & nanofabrication ; biobased and or biodegradable polymers

Institut Charles Sadron (polymer materials and self-assembled systems) \parallel

http://www.ics-cnrs.unistra.fr/index-switchlang-en.html

7 research teams

- Self assembled systems
- Soft matter and interfaces
- Functional macromolecular materials
- Functional aspects of polymer sciences

Unité INSERM 1121 > Biomaterials & bioengineering (INSERM=National Institute of Health and Medical Research) || https://us.biomaterials-

bioengineering.com/

5 research teams

- Personalised & intelligent biomaterials
- Nanobiomaterials: Theranostic biological nanoparticles
- New implants

The ECPM – University of Strasbourg

welcomes international students ప్రసం 🔊

🧼 ecpm

International University House

& ECPM international office

- Assistance on administrative issues
- Accommodation: room/appartment for each incoming international student
- French courses
- Integration programs for exchange students at ECPM and at university level
- Welcome day
- Cultural activities

https://www.unistra.fr/etudiant-chercheur-etrangers/theinternational-university-house http://ecpm.unistra.fr/en/international/studying-at-the-ecpm/

28

* * *

As a student of the University of Strasbourg, you may benefit from

- University Health Service
- Food & drink (lunch/diner: 3.30 €)
- Culture (free entry to museums, discount cinema tickets preferential rates for cultural events and festivals)
- Sports (60 different activities)
- Learning resources (computing services, libraries ...)





...

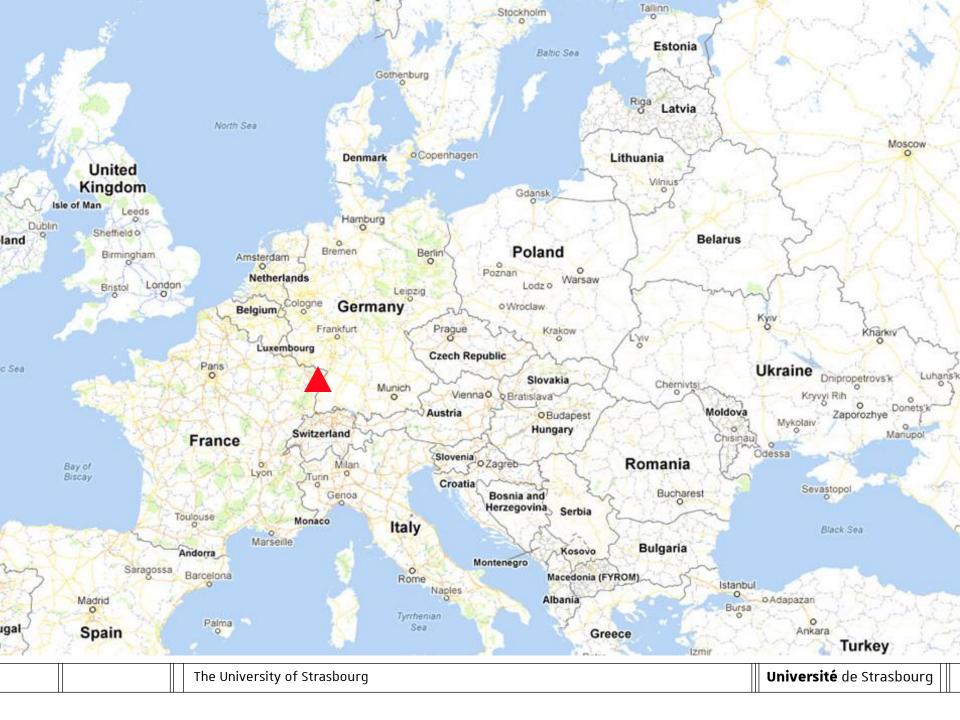
Video: Studying at the University of Strasbourg http://www.unistra.fr/index.php?id=27112

City of Strasbourg

മ്പിന്ന് ആ ആ ഗ്

- 500.000 inhabitants
- Border with Germany
- At the heart of Europe
 - 1h45 -> Paris
 - 2h30 -> Francfort
 - 1h15 -> Basel





Strasbourg, an easy living city

A pioneer city in terms of respect of the environnement The city of bicycles, trams and pedestrians







LA PETITE FRANCE

🔶 ecpm			Université de Strasbourg	
--------	--	--	---------------------------------	--



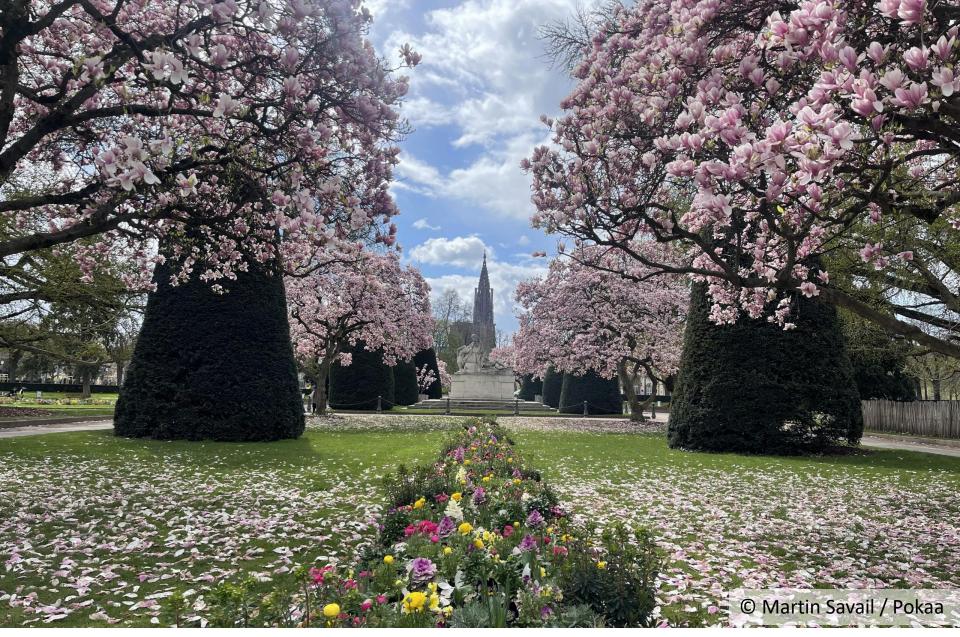
CITY CENTRE





EU-PARLIAMENT





MAGNOLIA TREES

36 **→ ecpm Université** de Strasbourg



VOSGES MOUNTAINS AND VINEYARDS

37	🥐 ecpm		Université de Strasbourg	
----	--------	--	---------------------------------	--



SKIING IN THE VOSGES MOUNTAINS



Thank you for your attention!

Please contact

Prof. Xavier BUGAUT

Strategic partnerships

xbugaut@unistra.fr

Marta SAPPE GRIOT Isabelle FRAUNHOFER International office

ecpm-international@unistra.fr

https://ecpm.unistra.fr/en/

