

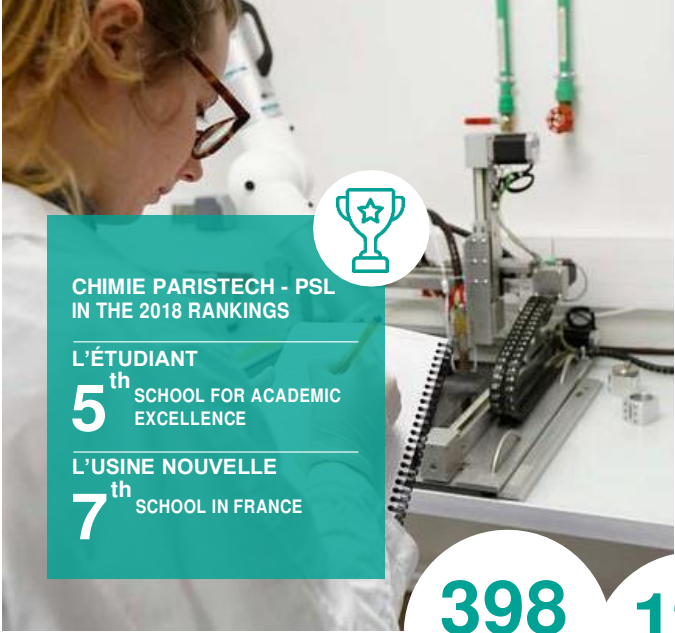
CHIMIE PARISTECH - PSL | ENGINEERING SCHOOL

# STUDY AT CHIMIEPARISTECH - PSL

- ENGINEERING DEGREE
- MASTER OF SCIENCE
- PhD

CHEMISTRY  
TO INNOVATE  
AND SHAPE THE  
WORLD OF TOMORROW





CHIMIE PARISTECH - PSL  
IN THE 2018 RANKINGS

L'ÉTUDIANT  
**5<sup>th</sup>** SCHOOL FOR ACADEMIC  
EXCELLENCE

L'USINE NOUVELLE  
**7<sup>th</sup>** SCHOOL IN FRANCE



**398**  
STUDENTS

**120**  
RESEARCHERS  
AND/OR  
LECTURERS

**50%**  
OF WOMEN  
AMONG STUDENTS

**25%**  
INTERNATIONAL  
STUDENTS

**100**  
PARTNER  
INSTITUTIONS



**2**  
OPTIONS  
FULLY IN  
ENGLISH

**40%**  
OF THE TRAINING IS  
PRACTICAL

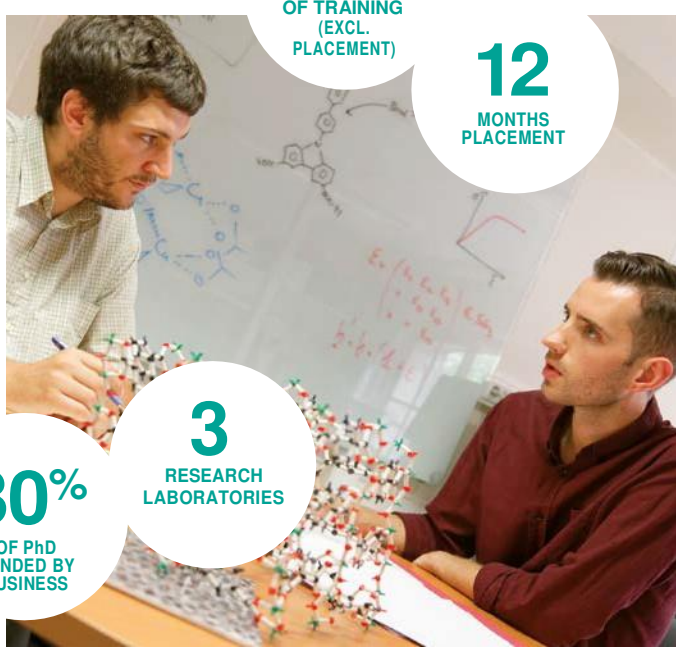
**2000**  
OF TRAINING  
(EXCL.  
PLACEMENT)

**12**  
MONTHS  
PLACEMENT



**30%**  
OF PhD  
FUNDED BY  
BUSINESS

**3**  
RESEARCH  
LABORATORIES



# HIGH-LEVEL ENGINEERING PROFESSIONALS



Chimie ParisTech - PSL, is a leading institution in Chemistry, delivering training for more than 120 years to future engineers who will have a great understanding of innovation and are highly sought-after by businesses or international academic institutions. Our school delivers a comprehensive training based on excellence and originality covering all fields of chemistry and material sciences.

## TRAINING AT CHIMIE PARISTECH – PSL: ENGINEERING, SCIENCE AND MANAGEMENT

Chimie ParisTech - PSL training is based on a wide scientific knowledge. We also include training in management, and entrepreneurship and give students a solid knowledge of the economic world.

This high-level training is delivered by academic professors and business professionals.

## OUR VALUES

- An excellent and comprehensive training in chemistry and material sciences.
- A both high-level theoretical and well-developed practical training.
- Give our students both social and scientific skills.
- Make our students open to the world thanks to their diversity.
- Our social, environmental and economic responsibility.
- The variety of admission programmes and student profiles.

## GOING GLOBAL

At Chimie ParisTech - PSL, students will have a strong international experience, which is needed for their career. We have developed many opportunities for our students :

- Language training (English is mandatory).
- More than 20 double degrees around the world.
- European and international placements.
- Erasmus or international study trips (more than 60 partners).

## OUR UNIVERSITY: UNIVERSITÉ PSL

Located in the heart of Paris, PSL inspires dialog among and between all areas of knowledge, innovation, and creativity in the Arts, Engineering, Sciences, Humanities and Social Sciences. Selective and committed to equal opportunity, it draws directly from current research to train researchers, artists, entrepreneurs, and managers who are aware of their social responsibility, both individual and collective.

With 4,500 researchers, 17,000 students, 181 laboratories and 10 incubators, fab labs and co-working spaces, PSL is a human-scale university. It ranks among the world's top 50 universities according to the THE (Times Higher Education), QS (Quacquarelli Symonds) and Shanghai rankings.

# 3 YEARS TO BECOME ENGINEER FROM CHIMIE PARISTECH - PSL

## 1<sup>st</sup> YEAR TOWARDS ENGINEERING

### 1<sup>st</sup> SEMESTER

- Chemical risk
- Molecular chemistry
- Physical chemistry and Interfaces
- Quantum chemistry
- Analytical chemistry
- Computing and programming
- Applied Mathematics for Engineering
- Management and Economy

### 2<sup>nd</sup> SEMESTER

- Molecular chemistry
- Chemical Engineering
- Chemical bond
- Interaction radiation matter
- Chemistry of Materials
- Spectroscopy
- Numerical Methods
- Management and Economy

### Transdisciplinary project

(6 months): introduction to the management of projects that include societal, economics or environmental challenges

Scientific Team Project (2 months)

Work placement (1 to 2 months)

## 2<sup>nd</sup> YEAR ELECTIVE COURSES

### 1<sup>st</sup> SEMESTER MANDATORY COURSES

- Chemical Engineering
- Metallic materials
- Polymer chemistry
- Analytical chemistry
- Molecular chemistry and biochemistry
- Energies
- Statistical Thermodynamics and Molecular Modelling
- Digital engineer

### 2<sup>nd</sup> SEMESTER : ELECTIVE COURSES

#### 1 OPTION AMONG 6

- Molecular chemistry
- Molecular chemistry
- Materials (fully in English)
- Chemical Engineering
- Analytical and biological chemistry (fully in English)
- Biophysics and soft matter (at ESPCI)
- Nuclear (at IFCEN, Zhuhai, China)

### Technology Team Project

Long placement (5 months)

## 3<sup>rd</sup> YEAR SPECIALIZATION

### 1<sup>st</sup> SEMESTER MANDATORY COURSES

- Management and Leadership seminar
- Management, economy and finance
- Entrepreneurship and professional project
- Scientific and professional English

### Specialisation in Engineering

- Energy
- Cosmetology
- Materials and sustainable processes
- Industrial engineering
- Green chemistry and sustainable design
- Biotechnology
- Management, innovation and consultancy
- Industry 4.0

or

### Research

to get a double degree with a MSc

or

(Inter)national mobility: study trip or double degree in France, Europe or worldwide

### 2<sup>nd</sup> SEMESTER

End of study project (6 months)

## MASTERS OF SCIENCE

- **Master in Chemistry**
  - > Molecular Chemistry
  - > Chemistry of Materials
  - > Analytical, Physical and Theoretical Chemistry
  - > Chemical Engineering
  - > Chemistry and Life Sciences (in English)
- **Material Science and engineering**
  - > Materials and Engineering Sciences in Paris (in English)
  - > Materials of the future, Design and Engineering
  - > Microfluidics, fluid science engineering
- **Energy (in English)**
  - > Sustainable Energy & Materials
  - > Energy Efficiency
  - > Decarbonation of fuels
  - > Renewable Energy, grids
- **Nuclear Energy**
  - > Fuel Cycle (in English)
- **BioMedical Engineering (BME)**
  - > Bioimaging (in English)

## EELISA

The school through the PSL University actively participates in EELISA, one of the 41 new European Universities. EELISA gathers 9 Universities in 7 European countries (180 000 students).

European Engineering Learning Innovation and Science Alliance (EELISA) is the first alliance of Higher Education Institutions (graduate engineering schools, technology universities and full-spectrum universities) from different countries in Europe meant to define and implement a common model of European engineer rooted in society.

## PhDs

- Chemical engineering and advanced technology
- Physical chemistry and analytical chemistry
- Molecular chemistry
- Material physics and chemistry

More information on [www.psl.eu](http://www.psl.eu)

## A BUSINESS-ORIENTED EDUCATION

The school has very strong organic links with businesses. These partnerships are expressed both within the framework of the school's research activities and throughout the course at Chimie ParisTech - PSL.

### HIGH LEVEL BUSINESS PARTNERSHIPS

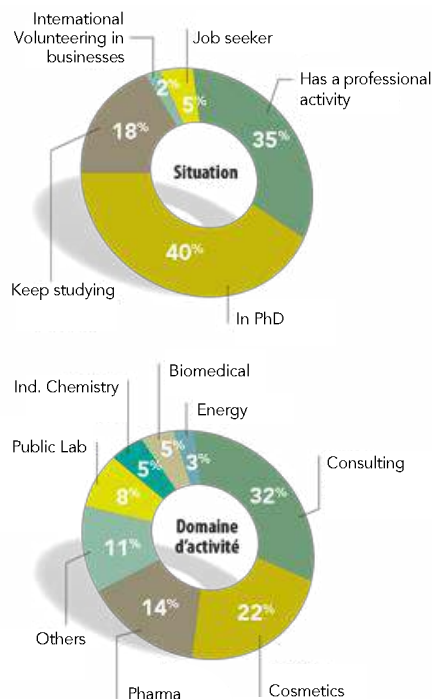
- Immersion in an industrial context through the involvement of industrial stakeholders in the training, many practical works.
- Weekly seminars with professionals from companies in the chemical industry (positions, jobs, career paths).
- Transdisciplinary projects integrated into the first year of training programmes. Students learn team work, project mode for an upstream preparation for the business world.
- Case studies and challenges launched by from companies to students through "Technology Team Projects".
- Part-time training (apprenticeship): Chimie ParisTech - PSL has adapted its programme so that student can be part time at school and part time in businesses.

### CUSTOMISED SUPPORT

- A dedicated office to offer students support to build a personalised and coherent professional project.
- 2 personal development assessments.
- Skills assessment.
- Job search preparation workshop during the 3<sup>rd</sup> year.
- Support in finding placements/internships.

## CAREER OPPORTUNITIES

**+90%** OF OUR STUDENTS FIND A POSITION BEFORE GRADUATION



### 2018 GRADUATION (110 ENGINEERS)

| PLACEMENTS | 1 <sup>st</sup> YEAR<br>1 TO 2 MONTHS | 2 <sup>nd</sup> AND 3 <sup>rd</sup> YEARS<br>5 TO 6 MONTHS IN BUSINESSES<br>AND/OR LABORATORIES |
|------------|---------------------------------------|---|
|------------|---------------------------------------|---|

### INTERNATIONAL DOUBLE DEGREES

With prestigious partners around the world

- Sweden : KTH
- Italy : Politecnico de Milano
- Canada : Polytechnique Montréal
- Russia : State Universities of Novosibirsk, Tomsk
- Brazil : Universities of Sao Paulo, Federal University of Rio de Janeiro...
- China, Colombia, Argentina...

### STUDENT LIFE

The vitality of the students' associations supports students' social, sporting and cultural life within the School, so that their stay at Chimie ParisTech - PSL is a real, vibrant moment of personal evolution.

### ALUMNI

Chimie ParisTech - PSL has an active network of alumni for the students thanks to the association of Chimie ParisTech - PSL graduates (mentoring, support for initiatives).



CHIMIE PARISTECH – PSL AND ITS PARTNERS  
CREATED CHIMIE PEKIN @BUCT, 1<sup>st</sup> SINO-  
FRENCH INSTITUTE IN CHEMISTRY

Temple de ciel.

## CHIMIE PARISTECH - PSL OUTSIDE CAMPUS

### INTERNATIONAL DEVELOPMENT

#### CHIMIE PÉKIN/IFCEN

Chimie ParisTech - PSL is the coordinator of a French consortium 'Paris Curie Engineering School' (Chimie Pékin) which is a sino-french institute hosted at Beijing University of Chemical Technology (BUCT). The School is also a member of the French consortium IFCEN (nuclear energy) at Sun Yat-Sen University (Zhuhai, China).

#### PSL

##### CPES : INTERDISCIPLINARY BACHELOR

This Bachelor is a new option for students in between preparatory classes for engineering schools and BSc delivered in Universities. It aims at training students so that they can be ready for a Master's level training in France or anywhere else. The training is interdisciplinary and it is very selective.

#### PARISTECH

##### INSTITUT VILLEBON CHARPAK

Chimie ParisTech - PSL professors are involved in Institut Villebon Charpak. It aims at training students who did not think about embracing a scientific and technology career and get a BSc in S&T. Teachers deliver training using the most innovative pedagogy so that they can succeed. Students coming from different background (social, geographical...) and students with special needs are particularly welcome.



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