



LIVE AND  
DISCOVER

Engineering Graduate School of Chemistry,  
Digital Science and Technology

AN  
EXPERIENCE  
TO LIVE,  
A FUTURE  
TO DISCOVER

Graduate School

Digital Science  
and Technology

Chemistry-Process  
Engineering

# LIVE AND DISCOVER

## WELCOME TO CPE LYON, AN INGENIUS ALCHEMY...

CPE Lyon is a "centenary start-up" prestigious engineering graduate school where material science, chemistry, process engineering, computer science and life sciences come together. We offer exceptionally rich and diverse studies open to the international world, in a European metropolis known for its quality of life, active research hubs and dynamic business environment

Built on the model of prestigious European research universities, in the heart of the Lyon-Tech-la Doua campus, CPE Lyon's values are based on high standards, student support, freedom and strong human connections. In its history, our school has had 3 Nobel Prize winners, 5 academicians and many business founders and entrepreneurs. We cannot wait to welcome and accompany you toward new horizons. Come live and discover your potential at CPE Lyon!

**G rard Pignault,**  
Director of CPE Lyon

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# CPE LYON

## EMBARK ON A GREAT SCIENTIFIC ADVENTURE

Not only is CPE Lyon a prestigious graduate engineering school, but also a unique crossroads where **chemistry and process engineering, science and digital technologies meet**. It offers 6 innovative diplomas and advanced studies in science and technology. By choosing CPE Lyon, you will have access to a wide range of international disciplines and courses within the LyonTech-la Doua Campus, in the heart of an ultra-dynamic research and technology metropolis.

## A HYBRID STATUS, PRIVATE / PUBLIC

Located on the LyonTech-la Doua campus, CPE Lyon is a renowned establishment, with private associative status, associated by decree with the University of Lyon 1, accredited by the CTI<sup>1</sup> and partner of the CNRS<sup>2</sup>.

With its EESPIG label<sup>3</sup>, it performs its public service mission in terms of teaching, international opportunities and excellence in research. 100% of the resources are in fact invested in student training and research activities.

<sup>1</sup>CTI (Commission assigning engineering & high-level science diplomas): a national body allowing higher education institutions to award French Engineering diplomas (MSc Level). To guarantee the quality of these diplomas, it carries out regular and strict evaluation procedures.

<sup>2</sup>CNRS : French National Centre for Scientific Research. Main body in charge of administrating research activities in France. It is the largest fundamental science agency in Europe.

<sup>3</sup>EESPIG label: a state certification recognizing private non-profit higher education institutions that have signed a contract with the state to award.

## COME LIVE THE CPE LYON EXPERIENCE

 **TRAVEL TO THE HEART OF SCIENCE**

**EXPLORE INNOVATION**



 **DISCOVER STUDIES OPEN TO THE WORLD**

**GET READY TO BECOME AGILE AND FLEXIBLE**



 **ENJOY LIFE-ENHANCING STUDENT EXPERIENCES**

# A UNIQUE TEACHING APPROACH

## CPE LYON IS COMMITTED TO A MORE SUSTAINABLE AND SUPPORTIVE FUTURE

For several years, our graduate school has ranked well in its action in favor of ecological and societal transition, particularly in the rankings of Echos START. From our teaching – focused on green chemistry, the ethics of digital technologies, conferences and workshops – to more global courses on energy transition and citizenship, our programs integrate major issues for our society. Our student organizations are also committed to sustainable and joint action, promoting personal development and a sense of responsibility..

## VERSATILE AND INTERNATIONAL STUDIES

With six engineering degrees, including four through apprenticeship, and a specialized master's, CPE Lyon is one of the largest academies of chemistry-process engineering and digital science & technologies in France. Our students can spend up to 2 years abroad, an opportunity that strengthens their employability and allows them to pursue a career or a doctorate abroad.

## APPRENTICESHIP, AN IMMERSIVE LEARNING EXPERIENCE

Apprenticeship training is characterized by progressive company projects as well as training on emerging technologies. These programs take three years, with personalized graduate school/company support. These courses include a compulsory international internship of 2 to 3 months, thus contributing to an excellent professional integration rate for our graduates.

## AN INNOVATIVE AND SUSTAINABLE GRADUATE SCHOOL

- New/ completely renovated teaching facilities and laboratories
- Technologically advanced environment
- Sustainability: solar panels, industrial water recovery
- Landscaped spaces promoting biodiversity
- Accessibility for people with reduced mobility

## PEDAGOGY CENTERED ON OUR STUDENTS

- Diversified offers in courses, internships, projects, events, activities
- Support and listening: year managers, class delegates, disability monitoring and inclusion
- Promotion of entrepreneurship
- Promotion of international mobility
- Awareness of human, societal and managerial values

# OPEN TO THE WORLD: INTERNATIONAL AMBITION OF CPE LYON

As part of their studies, our students must do an international mobility of at least 17 weeks for students and 9 weeks for apprentices (CTI requirements). Many students go for a longer period as the school actively encourages its students to live several international experiences abroad.

## LIVE INTERNATIONAL EXPERIENCES

Many opportunities are available to CPE Lyon students for an international work experience. You can take a gap year between year 4 and 5, in order to discover the professional world in an international environment by doing an internship. You can also complete all of your internship internationally or study abroad, in one of our partner universities, during the first semester of year 5. Thus, more than 80% of students spend at least 1 year abroad during their training. Please note: the English level of students by the end of their training overpasses the CTI requirements.

## PARTNERSHIPS AND DOUBLE INTERNATIONAL DIPLOMAS

CPE Lyon has been able to build a vast international network with more than 100 partner universities around the world. In addition, we offer the possibility of obtaining double diplomas with several graduate schools in Spain and Germany. CPE Lyon is also a member of 2 Franco-Chinese institutes in Shanghai and Beijing, thus strengthening its international position. Over the years, CPE Lyon has developed strong partnerships and ties with many companies both in Europe and worldwide.

## TAILOR-MADE SUPPORT FROM THE START

- Specific support for the preparation of your mobility project with our International Office team
- Supported by a team of language teachers
- Two foreign languages for studies in chemistry - process engineering and digital science
- Multicultural approach integrated into all our programs to meet the challenges of globalization

# A STRONG CONNECTION WITH BUSINESSES AND RESEARCH

By joining the CPE Lyon community, not only will you acquire excellent theoretical and practical knowledge, but also, right from the start, you will immerse yourself in the professional world. This is done through internships and events such as the Career Day, where students and companies discuss professions, career paths and professional projects. In addition, you will also have the opportunity to explore entrepreneurship and business creation from your third year.

## GETTING READY FOR PROFESSIONAL LIFE!

At CPE Lyon, we believe that training does not stop once you have graduated. For more than 40 years, the CPE Lyon «Lifelong training program» has offered a range of scientific and technological training, from which more than 3,000 company employees benefit each year. For our students, we provide specific job and career support with resumé workshops, mock interviews and employment seminars. Our employment-career club is also there to help you develop your professional project and prepare for your working life.

## INTERNATIONALLY RENOWNED PARTNERS

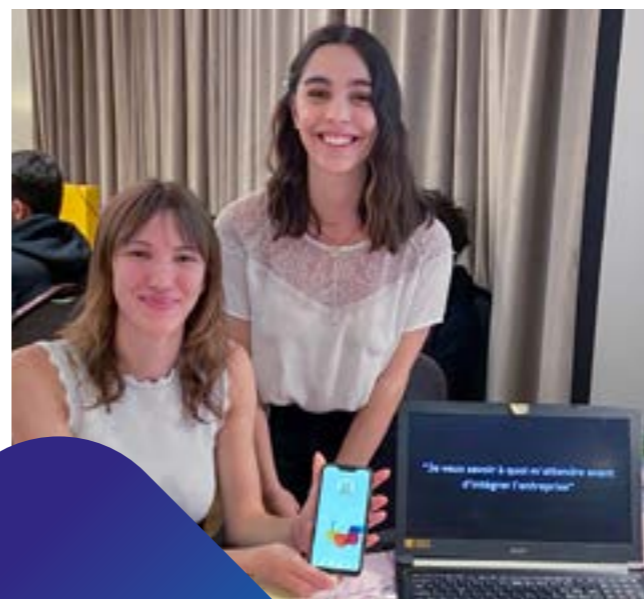
Since our creation, CPE LYON has established strong connections with leading companies in the chemical and digital science sectors such as **Alstom, Akkodis, Arkema, Capgemini, Elkem, Esker, Inetum, L'Oréal, Orange, Sanofi, SNF Water Science, Solvay, Sopra Steria, STMicroelectronics, Total, Volvo, and Wacker**. These partnerships allow us to bring together two worlds sometimes perceived as distant i.e. that of teaching and research, and that of business.

## OUR RESEARCH PARTNERS

With 3 Nobel Prize winners, 5 academicians, 6 research laboratories, and 4 mixed research units, CPE Lyon has always cultivated a passion for research and development. Thanks to our close collaboration with prestigious teaching and research partners such as the CNRS, Claude Bernard Lyon-1 University, INSA Lyon and the École Centrale de Lyon, we have achieved a recognized level of academic excellence.

## DOUBLE DIPLOMAS FOR MORE PROFESSIONAL SKILLS

- Launch of a "Business mediation" double diploma with the emlyon business school in 2017 to train "innovators", capable of leading innovative projects and developing new activities
- Creation of a double diploma with the IFP School "Energy and Products", "Processes and Polymers", or "Energy and Processes"
- Training program including by both academics and business representatives in digital technology and chemistry



# LIVE THE STUDENT EXPERIENCE AT CPE LYON

## DISCOVER THE EXCELLENT LOCATION OF LYONTECH-LA DOUA

By becoming a student at CPE Lyon, you will discover the LyonTech-la Doua campus, a major site (25,000 students) uniting the University (Lyon 1), engineering graduate schools (INSA Lyon, Polytech Lyon), research laboratories, innovation hubs and services, technological platforms and businesses. This "super scientific eco-campus" aims to strengthen synergies between training, research and innovation in the service of economic development, as well as the students' quality of life. Lyon-Tech-la Doua therefore represents a significant opportunity for all students wishing to learn in an inspiring setting, and brings together all the conditions to promote scientific excellence..

## AN INTERNATIONALLY RENOWNED ECO-CAMPUS

In recent years, CPE Lyon has benefited from the renovation and modernization program of the Lyon-Tech-la Doua campus. The aim has been to create an internationally renowned eco-campus. Our graduate school is now located on modern and renovated premises. These buildings meet the highest current requirements in terms of energy consumption, etc.. CPE Lyon researchers make the most of this quality work environment to give courses and practical workshops to the school's students as well as training for company employees as part of the CPE Lyon «Lifelong training program».

## A GREAT REGION FOR STUDENTS

Students love Lyon not only for its quality of life, atmosphere, proximity to the mountains and sea as well as its cultural events but also for the diversity of its training programs. The region's network of businesses also attracts students, since the local job market is dynamic. The city ranks second among research and higher education centers in France. Moreover, every year, Lyon is quoted as being one of the favorite cities for students.

## YOUR STUDENT LIFE AT CPE LYON

- A warm welcome in September with activities, meetings and an integration weekend
- Numerous events organized throughout the year: a gala evening, ski week, arts week and more
- Student life led by the Student Office (BDE)
- 17 sports offered by the Sports Office (BDS)
- Clubs and associations in culture, arts, gastronomy, charity work and the professional world



# BOUND FOR LYON

## WORKING IN LYON

The reputation of Lyon goes beyond the city limits, in one of the most dynamic regions that of Auvergne Rhône- Alpes. Today, Lyon is recognized as a true European metropolis due to its economic attractiveness, UNESCO world heritage status, cultural wealth and geographical location. The city always leaves a lasting impression! For several years, large companies have chosen to set up in Lyon. As a result, the capital of Gaul is in the top 10 of the most attractive cities in Europe.

## LYON: A "SILICON" AND "CHEMISTRY" VALLEY!

Renowned for being the "City of Tech", Lyon shines with its dynamism in the field of digital technology and entrepreneurship including numerous communities, global events, start-up accelerators, co-working spaces, etc. But also in chemistry and biotech! Nicknamed the Valley of Chemistry, Lyon is an important source of value creation, in terms of jobs, wealth and innovation. 50,000 employees, 10,000 industrial jobs, and 2,000 researchers have been working to create a true public/private/academic research ecosystem and centre since the 1850s. Four industrial sites are labeled "Showcase of the Industry of the Future"<sup>5</sup> in the region

<sup>5</sup>: label awarded to companies that have successfully transferred developed innovations in production



Foyer des étudiants

# FAQ

## CPE LYON

What do you want to know about CPE Lyon, its courses, study environment, and opportunities? Here are the most frequently asked questions from our prospective students! For more information, feel free to scan the QR codes or click on the associated links.

### CAN I PERSONALIZE MY GRADUATE SCHOOL PROGRAM AT CPE LYON?

Yes! Our training programs have been designed to allow personalization of your courses according to your wishes.

Discover the different training options (in French)



### WHAT ARE MY PROSPECTS AFTER GRADUATING AT CPE LYON?

Our students refine their professional project throughout their training and can therefore land positions in a wide variety of sectors, types of company and countries.

Some career plans are oriented towards industrial sectors, whereas others more towards research, services, teaching, and entrepreneurship. As a result, the types of careers are diverse and everyone holds the key to carrying out their professional project at the end of their studies.

Find examples of courses of studies and testimonials (in French)



### WHAT IS THE DNA OF CPE LYON?

The heart of CPE LYON beats with professionalism and conviviality, close links between students and teaching teams, tailor-made support for international mobility, and internships, and help for students with disabilities.

Everything is set up to support students during their years in this graduate school, to help them grow and become real professionals.

Learn more about our educational approach (in French)



### WHAT OPPORTUNITIES DOES CPE LYON OFFER FOR INTERNATIONAL STUDIES, INTERNSHIPS AND PROJECTS?

We have partnerships with more than 110 universities around the world and also have connections in order to offer international internships so that your training has a strong international component.

Our partnerships and international opportunities (in French)



### DURING MY STUDIES, IS THERE ROOM FOR EXTRA-CURRICULAR ACTIVITIES?

With the sporting, artistic and cultural activities offered by the different students' associations at CPE LYON, there is always something happening! For instance, the projects put in place by everyone and the legendary events that punctuate the year including the Art's week, Gala evening, and ski week, etc.

The strong dynamics of extra-curricular life is one of the school's recognized strengths, which the new students are keen to perpetuate every year!

All of our extra-curricular activities (in French)



### CHEMISTRY OR DIGITAL SCIENCES: HOW CAN I CHOOSE BETWEEN THESE TWO FIELDS AT CPE LYON?

At CPE Lyon, our distinct courses in Chemistry - Process Engineering and Digital Sciences and Technologies are designed to help you find your passion. If you are still hesitant, why not try our quiz to help guide your choice?

Find the opportunities offered by each of the areas by answering the quiz on the next page



# WHICH CAREER FOR ME ?

Whether you are attracted by experiments in the chemistry laboratory or the world of new technologies, CPE Lyon offers numerous opportunities to meet your expectations. Ready to start this adventure? Answer the questions below and get informed!

## 1. WHICH SCIENTIFIC DISCIPLINE FASCINATED YOU MOST IN HIGH SCHOOL?

- A** Chemistry laboratory experiments
- B** Math and physics problems
- C** Programming challenges and exploring new technologies

## 2. WHICH WORK ENVIRONMENT ATTRACTS YOU MOST?

- A** research laboratory
- B** large company
- C** start-up

## 3. QUEL TYPE DE PROJET VOUS MOTIVE AUJOURD'HUI ?

- A** Développer un nouveau matériau pour un produit écoresponsable
- B** Concevoir une application mobile pour aider les gens au quotidien
- C** Optimiser un processus industriel pour le rendre plus efficace et plus écologique

## 4. WHAT TYPE OF PROJECT MOTIVATES YOU TODAY?

- A** To become an expert in sustainable development and energy
- B** To work in AI and robotics
- C** To create your own business in the health or agri-food sector

## RESULTS :

Majority of **A** :

Our courses in Chemistry - process engineering seem to be made for you! Your passion for laboratory experiments and the development of ecological solutions will be assets to your success.

Majority of **B** :

Our training courses in Digital Science and Technologies are made for you. Your interest in technology and AI will be your greatest strengths.

Majority of **C** :

Either the chemical or digital engineering courses with an emphasis on innovation and entrepreneurship would correspond to your aspirations. CPE Lyon gives you the opportunity to explore both areas while developing your entrepreneurial project.

Remember, this quiz is indicative. The entire CPE Lyon team is here to help you define the program that suits you best.

# WELCOME TO THE DIGITAL AGE

## THE FIELD OF DIGITAL TECHNOLOGIES OFFERS:

- Excellent employment rates for graduates
- Innovative, evolving and new professions
- Relatively high salaries from the first position

Immerse yourself in the dynamic and innovative world of Digital Science and Technology, a sector in which the needs are great and sustainable. This field requires considerable technical expertise, opening up onto a wide range of meaningful and impactful careers. By choosing one of our 4 diplomas in this field, you can become an active player in a constantly evolving society.

## NEW PROFESSIONS, NEW CHALLENGES

Working on autonomous cars, processing masses of data for health, designing personal assistance robots, modeling 3D images for medicine, imagining AI with inclusion objectives...

## AREAS COVERED BY OUR TRAINING

Computer science, AI, electronics, telecom networks, IoT and connected objects, image modeling, 3D images and environments, cybersecurity, big data, service robotics, and embedded systems.

### Fannie Fontanel, ETI<sup>6</sup> class of 2016, Machine Learning Engineer at Apple in California

« CPE Lyon propelled my career by allowing me to acquire skills valued by the Tech sector through internships and international exchanges. I cultivate the school spirit by remaining perpetually curious and seeking to broaden my knowledge. My internship at Bosch in Germany allowed me to deepen my understanding of computer vision and robotics, leading me to the field of Deep Learning. For future students, I highly recommend taking advantage of internship and study opportunities abroad. »

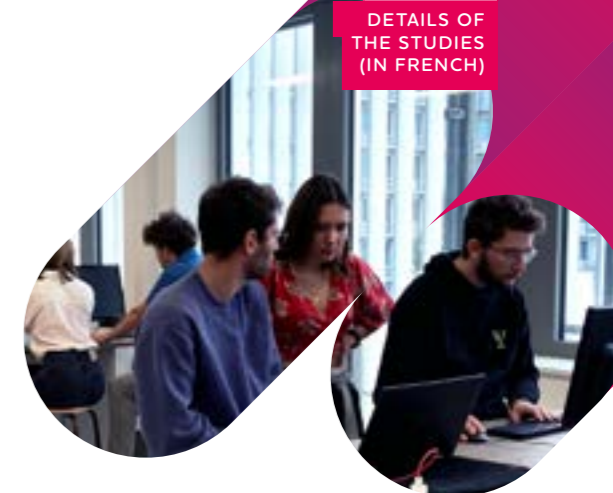
<sup>6</sup>: Electronics - Telecommunications and Software



# ELECTRONICS - TELECOMMUNICATIONS - IT



DETAILS OF THE STUDIES (IN FRENCH)



This innovative digital Science program with electronics, telecommunications and IT is complete as it ranges from hardware to software, nano-tech to big data, from programming to artificial intelligence. At the end of the program, you will have this highly sought-after generalist profile, knowing how to integrate and adapt to multidisciplinary and international contexts.

## CURRICULUM STRUCTURE

3 semesters of "core courses" during the first 2 years of the engineering cycle (years 3 and 4), you will study computer science, electronics, physics and mathematics, signal and image processing.

A specialization in year 5 to develop specific skills linked to current technological challenges.

The training program focuses on innovative teaching including projects, problem-based learning, hackathons focused on collaborative work, and challenges, etc.

Each year of study ends with an **internship**: 1 month, 3 months and finally, 6 months.

Between year 4 and 5, students have the opportunity to take a gap year (internship(s), personal project)

As part of the training program, **international mobility** (working in another country) for a period of at least 17 weeks is required, whether in a company, research laboratory or partner university.

## SPECIALIZATIONS

- Software Design and Big Data
- Infrastructure and Network Security and Connected Objects
- Service Robotics
- Image, Modeling and IT
- Electronics and Embedded Systems

## FURTHER STUDIES

For a research-oriented path, you can complete your CPE Lyon specialization with a **research Master's**

**degree** at the University Lyon 1 or at the Jean Monnet University, Saint-Étienne, and/or continue **with a PhD** after your engineering diploma.

You would also be eligible for double international diplomas and the double «Business mediation» diploma: CPE Lyon – emlyon business school.

## ADMISSION PROFILES: AFTER HIGH SCHOOL AND AFTER 2 YEARS OF HIGHER EDUCATION

- After high school: via the associated preparatory classes CPE Lyon – Les Chartreux in PCSI, SI option (Concours Puissance Alpha).
- High school + 2 years of higher education:
  - CPGE PC-Ph, MP, MPI, PSI, TSI, PT (CCINP competitive entry to graduate schools)
  - University degree - BUT or Licence 2 or 3 (admission documents and interview). See the list of eligible studentpaths on the dedicated flyer.

## TUITION FEES IN 2023-2024

- Associated preparatory classes CPE Lyon – Institution des Chartreux : around 2,850 euros / year
- CPE Lyon Graduate school: 7,980 euros / year

## FINANCIAL HELP

As part of its inclusion policy, CPE Lyon grants a reduction in tuition fees to CROUS scholarship students enrolled in this engineering training.

Other types of aid may be granted depending on individual situations.

# COMPUTER SCIENCE AND COMMUNICATION NETWORKS

## Apprenticeship

This training program is offered in partnership with the Institute of Industrial Engineering Techniques of Lyon (ITII Lyon).

With the course in Computer Science and Communication Networks (IRC) you will join the professional world as soon as you enter CPE LYON. As a result, you will soon master information systems and cloud computing, Internet technologies and languages, embedded systems and mobile applications, network and telecommunication architectures, and network and system security.

## CURRICULUM STRUCTURE

The integrated work-study program takes place over the 3 years of French engineering studies i.e. semesters 5 to 10 (years 3, 4 and 5 of higher education), at the rate of: 1 week at CPE Lyon / 1 week in the company. The diploma obtained is therefore equivalent to an MSc.

At the graduate school, you will follow scientific and technical courses in information technology, networks and telecommunication, mathematics and to a lesser extent electronics, as well as non-scientific courses such as English and economic and social sciences. Specialisation courses begin in semester 8.

At the company, you are a full-fledged collaborator and provide daily operational assistance on 3 evolving projects.

A mission abroad of at least 9 weeks is to be carried out at the end of year 4.

The last semester of year 5 is spent full-time in the company.

## SPECIALIZATIONS

- Computer Science and Information Systems
- Infrastructure and Security of Networks and Communicating Objects
- Service Robotics – Autonomy and Intelligence



DETAILS OF THE STUDIES (IN FRENCH)

### Malo Truchet, IRC class 2021-2024

"My integrated work-study program at CPE Lyon in Computer Science and Communication Networks was very enriching. One project, fire management, was a turning point as it allowed me to develop my project management skills. The graduate school prepares you for the job market by integrating professionals into the curriculum. I discovered my leadership skills and so advise future students to seize every possible learning opportunity! »

## CAREER PROSPECTS

With this diploma, the career prospects are diverse: development and integration of software, data analysis and processing, design and deployment of network infrastructures, system and network administration; deployment, configuration and optimization of telecom infrastructures, piloting and management of projects, design and integration of robotic systems, software and hardware performance optimization, development, integration and continuous testing, as well as deployment of infrastructure locally or in the cloud.

## ADMISSION PROFILES: AFTER HIGH SCHOOL + 2 YEARS OF STUDIES

- BUT<sup>7</sup> in Computer Science, Networks and Telecommunications (RT), Electrical Engineering and Industrial Computing (GEII), or Physical Measurements (MPH)
- BTS<sup>8</sup> in IT Services for Organizations (SIO), Digital Systems (SN)
- After 2<sup>nd</sup> or 3<sup>rd</sup> year of Bachelor's degree in Engineering Sciences (SPI), Mathematics and Computer Science applied to Science (MIAS), Computer Science.

## TUITION FEES

No tuition fees and a salary from the company

<sup>7</sup>: 3 year higher education technical university degree

<sup>8</sup>: 2 year higher education technical diploma

# COMPUTER SCIENCE AND CYBERSECURITY

One year as a regular student, then two years in apprenticeship

This integrated work-study training program is offered in partnership with the Institution des Chartreux and the Institute of Industrial Engineering Techniques of Lyon (ITII Lyon).

At CPE Lyon, innovation never stops! This is why we designed this master's diploma in Computer Science and Cybersecurity (ICS), after a BTS. The course is organized so that you do one year 100% in CPE Lyon, and then 2 years alternating between working in the graduate school and in the company. The objective is to train versatile and expert engineers to support the digital transformation of companies in areas such as cybersecurity, data processing and DevOps.

## CURRICULUM STRUCTURE

After two years of higher education (semesters 1-4), the third year of scientific courses (semesters 5-6) is done



DETAILS OF THE STUDIES (IN FRENCH)

as a regular student on the SUP ALTA campus at the Institution des Chartreux, in the Croix-Rousse district.

The following two years (semesters 7-10) take place alternating between working every other week in the school and then in your company in coordination with the ITII apprentice training center in Lyon.

Internships are also required at the end of the third year and final year. In addition, two projects are carried out in your company.

Finally, a mission abroad of at least 9 weeks is to be carried out at the end of year 4.

The diploma obtained is equivalent to an MSc.

## CAREER PROSPECTS

Again, with this diploma, the career prospects are diverse: Securing applications, securing system and network infrastructures, security audits, intrusion tests, application, network and system supervision, cybersecurity governance and risk management, deployment of local or cloud infrastructures, software development and integration, development, integration and continuous testing, data analysis and processing.

## ADMISSION PROFILES: AFTER HIGH SCHOOL + 2 YEARS OF STUDIES

- BTS: IT Services to Organizations (SIO) or Digital Systems (SN)
- BUT: IT, Networks and Telecommunications (RT)

## TUITION FEES 2023 - 2024

- Only in the third year in the Institution des Chartreux: 6,050 euros.
- No tuition fees for the next two years in apprenticeship (alternating between CPE LYON and the company).



# PHYSICS AND MICRO-ELECTRONIC SYSTEMS

Apprenticeship

This training program is offered in partnership with the Institute of Industrial Engineering Techniques of Lyon (ITIL Lyon).

Microelectronics is today strategic for sectors that integrate components, notably in the fields of defense, automotive, aerospace, and energy but also in the manufacturing of connected objects and for industries that use Artificial Intelligence.

The development of industries that integrate microelectronics possibly represents several hundred thousand jobs by 2030. This diploma in Physics and Microelectronic Systems (PSM) therefore offers excellent career prospects!

## CURRICULUM STRUCTURE

The integrated work-study program takes place over the 3 years of French engineering studies i.e. semesters 5 to 10 (years 3, 4 and 5 of higher education), at the rate of: 1 week at CPE Lyon / 1 week in the company. The diploma obtained is therefore equivalent to an MSc.



DETAILS OF THE STUDIES (IN FRENCH)

The support is personalized with training and progressive company missions.

Courses at CPE LYON benefit from state-of-the-art facilities, including a clean room.

The program integrates the new challenges of sustainable development for the electronics industry: "green IT" and provides for the acquisition of key transversal skills including critical thinking, emotional intelligence, judgment and decision-making, and verbal and non-verbal communication.

An international exchange period is required at the end of year 4, in a partner company or university.

## FURTHER STUDIES

The level of training means it is possible to continue with a doctorate and thus a research-oriented career path.

## CAREER PROSPECTS

The career prospects are increasing rapidly and are varied: both within the electronics and microelectronics sector designing and manufacturing components, and in sectors of activity using electronics such as defense, aerospace, automobile, health and energy, connected objects and consumer products such as PCs, smartphones, etc.

## ADMISSION PROFILES: DIRECTLY AFTER HIGH SCHOOL OR AFTER HIGH SCHOOL + 2 YEARS OF STUDIES

- First, after high school: via the CPE Lyon associated preparatory classes = Les Chartreux in PCSI (physics, math, engineering science, competitive entry - Concours Puissance Alpha)
- OR, after high school + 2 years of studies (semesters 1-4):
  - CPGE<sup>9</sup> MP / PC / PSI (CCINP competitive entry)
  - BUT: Electrical engineering and industrial computing (GEII), Physical measurements (MPH)
  - After 2<sup>nd</sup> or 3<sup>rd</sup> year of a Bachelor's degree in Electronics, Electrical Energy, Automation (EEA) or equivalent

## TUITION FEES

No tuition fees as this training is under apprentice status.

<sup>9</sup>: CPGE (Preparatory Classes to the Grandes Ecoles – high level schools of science and engineering): 2-year intensive program to later join a Grande Ecole for the 3rd year of studies

# CHEMISTRY: A WHOLE WORLD TO DISCOVER

In the field of chemistry, we offer two diploma programs, designed to provide you with excellent skills, significant practical experience and a wide range of career opportunities.

First, the very broad spectrum of training in Chemistry & Process Engineering (CGP) will allow you to become a multidisciplinary chemical engineer, mastering today's chemistry, taking into account its future in society and its impact on the environment.

Second, the training program in Industrial Process Engineering (GPI) is an integrated work-study program focused on the design, management and operation of chemical and bio-processes, in an international context and ecological transition.



Chemistry-Process Engineering

### Julien Garde, class of 2018 CGP, Marketing Manager in Endocrinology at Pfizer

«My training program at CPE Lyon allowed me to develop solid expertise in chemistry, while opening onto new perspectives. The internship I did during my gap year was a key moment, allowing me to live my dream of working abroad. It also refined my professional aspirations. Today, as a marketing manager at Pfizer, I take advantage of my dual scientific and commercial skills, an undeniable asset in my daily work. The "Live and discover" mindset encourages me to remain open to new possibilities. I therefore advise all future CPE Lyon students to take full advantage of the richness of the training and student life.»

## THE NEW CHALLENGES OF CHEMISTRY

Sustainability, green chemistry, nanotechnologies (materials), bio-mimicry, renewable energies, digital and big data.

## AREAS COVERED BY OUR STUDIES

Chemistry, Health-Pharmacy, Cosmetology, Environment, Biotechnology, Energy, Materials.

20%  
of CPE Lyon  
chemistry graduates  
pursue  
a thesis



4

internationally  
renowned  
research  
laboratories



with nearly  
400  
researchers  
and postgraduates/  
PhD students

3

Nobel Prize  
(Chemistry and Peace)



# CHEMISTRY – PROCESS ENGINEERING



DETAILS OF THE STUDIES (IN FRENCH)



**Margot Chaussat, CGP student and double degree from the emLyon business school**

« At CPE Lyon, I had a unique academic and professional experience. My training, supplemented by a double diploma with Emlyon, allowed me to combine my passions for chemistry and innovation management. My various internships including the one in Montreal enriched my career and profile. In addition, as president of the Student's Office, I was able to strengthen my skills in stress management and teamwork. CPE Lyon perfectly prepared me for the future, giving me the tools to evolve successfully in the professional world. »

Our Chemistry & Process Engineering (CGP) training program is based on acquiring a complete scientific base, covering all branches of chemistry, from molecular design to large-scale industrial production, as well as biotechnology.

With numerous academic and industrial partners in France and internationally, this diploma offers you a wide variety of career paths.

## CURRICULUM STRUCTURE

The first part of the program - core courses for 3 semesters - trains you in the following chemistry fields: organic and molecular chemistry, physical and inorganic chemistry, analytical science and process engineering. In the second part starting in semester 8 (year 4) you will be able to select your modules and then choose your final year specialisation.

Each year of study ends with an **internship**: 1 month (end of third year), 3 months\* (minimum; at the end of the fourth year) and then 6 months for semester 10 (final year).

\*Between year 4 and 5, students have the opportunity to do a gap year to do an internship(s), work experience or a personal project.

During the educational program, a **period spent working abroad** for at least 17 weeks is required, whether in a company, research laboratory or partner university.

## SPECIALIZATIONS

- Life Sciences and Biotechnologies
- Formulation and Implementation of Divided Solids
- Chemistry and Processes applied to the Environment
- Process Engineering Improvements

## FURTHER STUDIES

For a research-oriented path, you can opt, instead of your CPE Lyon specialization, to pursue a **research Master's degree** from the University of Lyon 1 or a foreign university, and/or continue with a **PhD after graduation**.

You can also do different double degrees, for example in emlyon business school, IFP School, and double international degrees.

## ADMISSION PROFILES: AFTER HIGH SCHOOL AND AFTER HIGH SCHOOL +2 YEARS

- After high school: via the associated preparatory classes CPE Lyon – Les Chartreux en PCSI, Chemistry option (Puissance Alpha Competitive entry)
- After high school + 2 years:
  - Preparatory classes - CPGE PC-Ch, TPC (CCINP Competitive entry)
  - University degree: BUT or Licence 2 or 3 (based on an application dossier and interview). See the list of eligible student paths on the dedicated flyer.
  - CPI Fédération Gay-Lussac preparatory classes

## TUITION FEES IN 2023-2024

- Associated preparatory classes - Institution des Chartreux: approx. 2,850 euros / year
- CPE Lyon graduate school: 7,980 euros / year

## FINANCIAL HELP

As part of its inclusion policy, CPE Lyon grants a reduction in tuition fees to CROUS10 scholarship students enrolled in this engineering training.

Other types of aid may be granted depending on individual situations.

# INDUSTRIAL PROCESS ENGINEERING



DETAILS OF THE STUDIES (IN FRENCH)

Apprenticeship

This training is offered in partnership with the Interfora IFAIP Apprentice Training Center.

The Industrial Process Engineering (GPI) diploma from CPE Lyon, under apprentice status, focuses on the design, management and operation of chemical and bioprocesses in an international context.

This is a special course dedicated to industry and trains future engineers in the design, management and use of chemical and biological processes.

It emphasizes operational excellence and environmental responsibility: gains in energy efficiency, improved yields and recycling, security, and energy transition.

The industrial process engineer will work on the design and implementation of new manufacturing units, maintenance and improvement of existing (industrial) production tools or in production management.

## CURRICULUM STRUCTURE

For the first 2 years (semesters 5 to 8) of this engineering course, work alternates with 1 month at CPE LYON then 1 month in a company, etc.

Semester 9 of the final year (year 5) is dedicated to international mobility in a recognized university offering a "Process Engineering" course in English. Semester 10 is devoted to the Final Year Project.

**N.B. mastery of English is also one of the aims of this diploma.**

## TRANSVERSAL SKILLS

- Digital / digital tools
- Performance improvement
- Environmental responsibility

## CAREER PROSPECTS

There are many career opportunities in industry in different sectors: chemistry, pharmaceuticals-health,

environment, agri-food, biotechnology, cosmetics, materials, energy, nuclear, petroleum, textile industry, automobile, and aeronautics.

## ADMISSION PROFILES: AFTER HIGH SCHOOL + 2 YEARS

- BUT: technical university degree in chemical engineering & process engineering; chemistry; or Process Engineering
- Licence 2 or 3 STS (university or technical degree) in chemistry & physics

## TUITION FEES

No tuition fees as training under apprentice status.





DISCOVER MORE  
TESTIMONIALS TO LIVE THE  
CPE LYON EXPERIENCE  
THROUGH OUR STUDENTS  
AND ALUMNI!



LIVE AND  
DISCOVER

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ENSEIGNEMENT  
SUPERIEUR PRIVE  
D'INTERET GENERAL  
LOI DU 22.07.2013



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des titres d'ingénieur

École associée à :



Lyon 1