



DIPLOMA SUPPLEMENT

"This diploma supplement model was developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates, etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why. (Source: European Commission, Council of Europe and UNESCO)."

The Lyon School of Chemistry Physics and Electronics (CPE Lyon) prepares and trains scientists/engineers in three specialities: **Chemistry-Process Engineering (CGP)**, **Electronics-Telecommunications-Computer Science (ETI)** and **Computer Science and Communication Networks (IRC)**. The latter speciality takes place via a block release system of studies alternating between school and company.

This diploma supplement applies specifically to education in the "CGP" speciality.

1 INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

- 1.1 Surname: [REDACTED]
1.2 First name(s): [REDACTED]
1.3 Date of birth: [REDACTED]
1.4 Student identification number: [REDACTED]

2 INFORMATION IDENTIFYING THE QUALIFICATION

2.1 Name of qualification

Titre d'ingénieur diplômé de l'Ecole Supérieure de Chimie Physique Electronique de Lyon, CPE Lyon, Spécialité Chimie - Génie des Procédés, titre d'ingénieur conférant le grade de Master « Master's Degree ».
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2.2 Main fields of study for the qualification

- Fundamental fields of the common core:
Organic and organometallic chemistry, analytical sciences, process engineering, catalysis, polymers.
- Choice of semi-optional courses in years 4 and 5 at CPE Lyon (choice to be made from a list proposed by the School).

2.3 Name and status of awarding institution (in original language)

Ecole Supérieure de Chimie Physique Electronique de Lyon (CPE Lyon)

Domaine scientifique de la Doua

43, boulevard du 11 novembre 1918 - BP 2077 - 69616 Villeurbanne cedex, France.

Private engineering school having the status of an Association, recognised by the State, education accredited by the Commission des Titres d'Ingénieur.

2.4 Name and status of institution administering the studies

Idem, with exceptions given in Section 6.1.

2.5 Language of instruction/examination

French and English (see Section 6.1).

3 INFORMATION ON THE LEVEL OF THE QUALIFICATION

3.1 Level of qualification

Five (5) years of higher education after the baccalauréat (end of higher secondary school) leading to the award of the diplôme d'ingénieur and the level of master, with a minimum of 300 ECTS credits (see Section 8).

3.2 Official length of programme

The total length of studies for the award of the diploma is five (5) years (10 semesters):

- Preparatory programme: four (4) semesters of preparatory classes or equivalent (see section 3.3). This corresponds to 120 ECTS credits.
- Engineer programme: six (6) semesters of education at CPE Lyon following recruitment that can be via several different routes. The whole of the engineering cycle corresponds to a minimum of 180 ECTS credits.

3.3 Access requirements

3.3.1 Access to the year 3 of the programme is possible via several routes:

- Recruitment from scientific preparatory classes:
 - Concours Communs Polytechniques, a national competition, for students in the second year of Grande Ecole Preparatory Classes (CGPE).
 - Continuous assessment for students in integrated preparatory classes of CPE Lyon. The recruitment into CPE Lyon preparatory classes is for students coming from the scientific speciality of the final year of secondary school (terminale) and the selection is carried out through the Common National Selection of FESIC (Fédération d'Ecoles Supérieures d'Ingénieurs et Cadres).
 - Continuous assessment for students coming from the preparatory classes of the Federation Gay Lussac (FGL).

The scientific preparatory classes consist of fundamental higher education in science (mathematics, physics, chemistry, engineering sciences, technology) together with courses for French and foreign languages. The work in the preparatory classes is very intensive. Only twenty per cent (20%) of the holders of the scientific baccalaureat are admitted into these preparatory classes.

- Recruitment on the basis of qualifications:
 - Recruitment of French and foreign students who hold a University of Technology Diploma (DUT), a Bachelor degree or equivalent, or having validated at least 120 ECTS credits of an appropriate higher education programme.
 - Recruitment through continuing education of candidates holding a DUT with additional professional experience.

Admission on the basis of qualifications is decided following a very selective procedure based on a number of criteria: pre-selection on the basis of academic performance followed by an interview to determine personality and motivation, evaluation of the level and the potential in languages. Approximately 25% of the candidates are admitted at the end of this procedure.

3.3.2 Access to year 4 of the programme can be through several different ways

- CPE Lyon recruits into year 4 of the programme (seventh (7th) semester of study after the end of secondary school) French or foreign students, holders of a scientific maîtrise (4 years of university education) or an equivalent degree or students having validated the first year of an appropriate master degree programme (M1 level). The admission procedure is the same as that used for recruitment into year 3 (pre-selection on the basis of academic performance followed by an interview and language evaluation). The study programme then consists of two (2) years (four (4) semesters) leading to the award of the Diplôme d'Ingénieur.
- CPE Lyon admits under the same conditions students who have validated four (4) years (8 semesters) of studies at the Institute of Pharmaceutical and Biological Sciences of the Claude Bernard Lyon 1 University and candidates coming from industry on the basis of continuing professional education.

4 INFORMATION ON THE CONTENTS AND THE RESULTS GAINED

4.1 Mode of study

The study is full time.

The final semester (semester 10) consists of a project in industry or in a university laboratory.

4.2 Programme requirements

4.2.1 Organisation of the engineer programme

- In the framework of the European Higher Education Area, CPE Lyon has established a semester system and an evaluation based on credit accumulation, called ECTS credits.
- The study programme has a modular structure based on three main themes: molecular chemistry, analytical sciences and process engineering. Each module is of 3, 6 or 9 ECTS credits. A module corresponds to a mixture of lectures, tutorials, practical work, project work, personal study and e-learning. The distribution and the evaluation of the pedagogic activities are adapted according to the learning outcomes of each module. A module of 3 ECTS credits represents about 75 to 80 hours of work, including personal study.
- In addition to these academic periods, students must carry out:
 - Compulsory work placements:
 - A work experience placement of four (4) weeks at the end of year 3 (semester 6): 5 ECTS credits.
 - An industrial training placement of 12 weeks at the end of year 4 (semester 8): 15 ECTS credits.
 - A final year project of 6 months duration (19% of these projects take place abroad): 30 ECTS credits.
 - Optional sabbatical year or 2 semesters in industry between years 4 and 5 post-baccalaureat: 60 ECTS credits. In 2008/2009, 88% of the students opted for the 2 semesters in industry; 82% of these semesters in industry take place abroad.

4.2.2 Acquired competences

The competences targeted by this programme are broad competences in chemistry and process engineering. The strong points are the links with research and industry, internationalisation and personal development.

- **Common competences**
 - A wide ranging scientific knowledge giving the ability to:
 - Devise, synthesise and formulate innovative molecules/products.
 - Devise the processes, model and size the installations for the production of a product on the industrial scale.
 - The capacity to analyse the problems and needs of industry; to adapt rapidly to requirements such as risk and safety control.
 - The ability to work in an international context:
 - The ability to communicate in English in various and complex situations with a particular ease in the speciality fields.

- The ability to communicate in a clear way in the other language studied (from a choice of 8 languages).
 - The capacity to integrate economic, social, environmental and ethical questions by referring to a range of knowledge acquired in human, social and economic sciences.
 - The aptitude to undertake innovative activities or projects through the experience gained in a company creation project carried out in a group from the first year of study.
 - An ability to carry out research developed during research projects carried out during the study programme and further developed by about 25% of the students by a Research Master carried out during the final year of studies.
- **Competences developed in each of the specialisation options (see Section 4.3)**
 - Chemistry and processes applied to the environment:
 - The capacity to anticipate, to understand, to analyse and to treat environmental problems at the level of waste/effluent treatment and the improvement of industrial processes.
 - The capacity to implement compliance with the rules (ISO norms) and the principles of environmental management and sustainable development.
 - Formulation and use of divided solids: theory and principles of disperse systems:
 - The capacity to characterise each of the components of a formulation, to master the theoretical basis of the physical chemistry of dispersed systems and to choose the development processes of the formulated products.
 - The capacity to formulate chemical and pharmaceutical products to give them the desired end use properties.
 - The capacity to determine the application technologies adapted to the formulated products.
 - Life sciences, health:
 - The capacity to understand and use the mechanisms of living things: molecular biology, immunology, metabolism, enzymology.
 - The capacity to synthesise molecules on a laboratory scale and to prepare the extrapolation of the syntheses to the production scale in the pharmaceutical and agro-food industries, taking into account their constraints and using their specific tools: fermentation, genetic engineering, enzymatic catalysis.
 - Process engineering:
 - The capacity to understand and analyse the physical and chemical phenomena occurring during a process and to be able to model these phenomena in order to test their robustness and to optimise them.
 - The capacity to analyse the needs of a process and to define the technical and human requirements to carry it out in an optimal way on an industrial scale taking into account the aspects of productivity, quality, sustainable development, health and safety, delay, and cost.

4.3 Programme details

The compulsory common scientific core takes place mainly during semesters 5 to 7. It consists of:

- Organic chemistry, biochemistry, polymers: 21 ECTS credits
- Analytical sciences: 18 ECTS credits
- Chemical and process engineering: 21 ECTS credits
- Physical and inorganic chemistry: organometallics, kinetics and catalysis: 12 ECTS credits
- Applied mathematics and informatics: 6 ECTS credits

The students personalise their education from year 4 (semester 8) of the programme, through projects (6 ECTS credits) and through semi-optional modules (15 ECTS credits) allowing them to deepen their knowledge in certain areas of the subject. In the final year (semester 9), they choose a major from a list proposed by CPE Lyon. Each major consists of 21 ECTS credits.

In compulsory or semi-optional modules, human, economic and social sciences (15 ECTS credits) and languages and international culture (15 ECTS credits), are taught.

In semesters 9 and 10, students may be allowed to take a research master programme (M2) in France or to carry out all or part of their final year of study in another higher education establishment in France or abroad within the framework of exchange agreements (or conventions) signed by CPE Lyon.

4.4 Grading scheme and grade distribution information

The skills and knowledge of the students are assessed by the teachers of each module on a regular basis and by examinations at the end of each semester: written examinations, oral exams, presentations of reports or projects, reports and individual or team work.

A module is validated if an average of 10/20 is obtained for all the assessments carried out for that module, expressed from 0 (the lowest mark) to 20 (the highest mark).

An academic semester is validated when 30 ECTS credits are obtained.

Industrial placements, placing the students in a professional situation, are subject to a specific assessment: carried out by the company and the school: scientific and technical quality of the project carried out, professional and behavioural aptitudes, the quality of the written report, and the quality of the oral presentation. The validation of the Final Year Project in semester 10 leads to the award of 30 ECTS credits.

The diploma is awarded if all the academic semesters, the compulsory work placements and the level B2 in English (from the Common European Reference Framework for Languages) have been validated..

The jury for the validation of a semester (and a year) is comprised of the Director of CPE Lyon, the Director of Studies, the Scientific Directors, the Heads of the years of study and two industrial representatives.

The jury for the award of the diploma, which meets at the end of the academic programme, is comprised of the Director of CPE Lyon, the Director of Studies, the Scientific Directors, the Director of International Relations, the Language Coordinator, the Heads of the years of study and two industrial representatives.

4.5 Overall classification of the qualification

Not applicable.

5 INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study

- Doctoral studies: doctorate in six (6) semesters.
- Specialised short course studies:
 - Diplomas with the label of the Conference des Grandes Ecoles: specialist masters.
 - Diplôme d'Ingénieur de Spécialisation or others.

5.2 Professional status

In France, the diplôme d'ingénieur is subject to a periodic accreditation by the Commission des Titres d'Ingénieur (CTI). The diplôme d'ingénieur confers the degree of master. It is also a professional qualification; the profession of engineer is not regulated. The graduate engineers of CPE Lyon can exercise the profession of engineer immediately following the award of the diploma.

6 ADDITIONAL INFORMATION

6.1 Additional information on the academic and professional curriculum

██████████ was admitted to CPE Lyon after a preparatory programme conforming to the admission conditions defined in paragraph 3.3.

	Academic semester	Period from to		Institution	Country	Language of instruction
Preparatory programme		01/09/2003	30/06/2005	Classes préparatoires, PC CPE Lyon	FR	French
	Semester 5	12/09/2005	31/01/2006	CPE Lyon	FR	French
	Semester 6	01/02/2006	30/06/2006	CPE Lyon	FR	French
	Semester 7	11/09/2006	26/01/2007	CPE Lyon	FR	French
	Semester 8	05/02/2007	08/06/2007	CPE Lyon	FR	French
Engineer programme	Semester 9	22/09/2008	23/01/2009	CPE Lyon Option in Process Engineering	FR	French

Industrial placements	Period from to		Company	Country	Language	Theme of the project
Work experience	10/07/2006	21/08/2006	ARKEMA	FR	French	██████████
Year in industry	03/09/2007	22/08/2008	GLAXOSMITHKLINE	GB	English	██████████
Final year project	02/02/2009	07/08/2009	IFP	FR	French	██████████

Degree obtained at the end of this programme:

Titre d'ingénieur diplômé de l'Ecole Supérieure de Chimie Physique Electronique de Lyon, CPE Lyon,
Spécialité Chimie - Génie des Procédés,
titre d'ingénieur conférant le grade de Master « Master's Degree ».

6.2 Other sources of information

<http://www.cpe.fr>

7 CERTIFICATION OF THE SUPPLEMENT

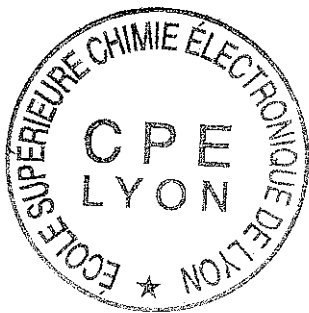
7.1 Date: September 24, 2009

7.2 Signature: Gérard Pignault



7.3 Capacity: Director of CPE Lyon

7.4 Official stamp or seal:



8 INFORMATION ABOUT THE HIGHER EDUCATION SYSTEM IN FRANCE

