

Pharmacy education & training in

FRANCE

2011

PHARMINE (PHARMacy education IN Europe) is a project funded by the European Commission (LLL programme, Erasmus). Its aims and objectives are to survey the present state of pharmacy education and training in Europe, and on the basis of this survey, formulate recommendations for new competence curricula for pharmacy education and training in the EU. A model for pharmacy education and training for candidate member states and other countries will be proposed. The opportunities for a quality assurance and accreditation scheme for EU pharmacy courses will be investigated.

PHARMINE will take into account two important issues, (i) the EU directive 2005/36/EC on the recognition of professional qualifications and, (ii) the Bologna declaration. PHARMINE will focus both on recommendations for core education and training and for activities such as industrial and hospital pharmacy.

The PHARMINE consortium consists of universities which are members of the European Association of Faculties of Pharmacy (EAFP) and EU partner associations representing community, hospital or industrial pharmacy, together with the European Pharmacy Students' Association and other interested bodies.

In order to reach the objectives of the PHARMINE project, a work-plan was set up and divided into 7 work-packages (WP).

The aims and objectives of PHARMINE WP7 are to:

1. Survey European higher education institutions (HEIs)
2. Produce a databank of pharmacy education and training courses in Europe leading to core pharmacist qualifications and to qualifications required for industrial and hospital pharmacy
3. Survey to what extent the "Bologna" (based on the principles enumerated in the Bologna declaration) and the "Sectoral profession" (based on 2005/36/EC) models for pharmacy education and training are compatible.

PHARMINE WP7 will produce several documents including a WP7 survey by country. **Such surveys are intended for the use of students and staff interested in mobility and/or contacts with the country in questions as well as educationalists working on pharmacy education and training in Europe.**

(see: [The PHARMINE paradigm.pdf](#))

The PHARMINE survey of European higher education institutions delivering pharmacy education & training - FRANCE was produced by:

Jeffrey ATKINSON
PHARMINE executive director
Pharmacolor Consultants Nancy
12 rue de Versigny
54600 Villers
France.
jeffrey.atkinson@pharma.uhp-nancy.fr
www.pharmine.org

Annie MARCINCAL
Professor
Faculté de Pharmacie
Université de Lille 2
Rue du Professeur Laguesse
59006 Lille
France
Annie.Marcincal@univ-lille2.fr
<http://pharmacie.univ-lille2.fr/>

with the help of:

Isabelle BARON
Conseil National de l'Ordre des Pharmaciens
Bureau de Bruxelles
Avenue de Cortenberg 116
1000 Brussels
Belgium
IBaron@ordre.pharmacien.fr
www.ordre.pharmacien.fr/

Valérie LACAMOIRE
Conseil National de l'Ordre des Pharmaciens
4, avenue Ruysdaël
75379 Paris Cedex 08
France
valerie.lacamoire@fr.astellas.com
www.ordre.pharmacien.fr/

Christine CAPDEVILLE-ATKINSON
Vice-president
Nancy University – UHP
24-30 rue Lionnois - BP 60121
54 003 Nancy Cedex
France
christine.atkinson@uhp-nancy.fr
<http://www.uhp-nancy.fr/>

Daisy VOLMER
Lecturer
Department of Pharmacy
University of Tartu
50411 Tartu
Estonia
daisy.volmer@ut.ee
www.med.ut.ee/farmaatsia/

Lea NOEL
PHARMINE project assistant
Dept.MICH
Vrije Universiteit Brussel
Laarbeeklaan 103
B 1090 Brussel
Belgium
lea.noel@vub.ac.be
www.vub.ac.be/MICH

Contacts in France.

	First contact	Second contact
Name	MARCINCAL Annie	ATKINSON Jeffrey
HEI	Université de Lille 2	Emeritus professor Nancy University
Street	BP 83, Rue du Professeur Laguesse	12 rue de Versigny
City, zip	59006 Lille Cedex	54600 Villers
Country	France	
Telephone	NA	33 383 27 37 03
Fax	NA	33 383 27 37 03
e-mail	Annie.Marcincal@univ-lille2.fr	jeffrey.atkinson@pharma.uhp-nancy.fr
Website	http://pharmacie.univ-lille2.fr/	www.pharmine.org

Index

	Page
Summary	6
Introduction	8
Chapter 1. Organization of the activities of pharmacists, professional bodies	10
Chapter 2. Pharmacy HEIs, students and courses	16
Chapter 3. Teaching and learning methods	21
Chapter 4. Subject areas	23
Chapter 5. Impact of the Bologna principles	27
Chapter 6. Impact of EC directive 2005/36/EC	29
Glossary and acronyms	30
The French scheme for pharmacy education and training	31

Summary

According to French legislation (Article L4211-1 of the French Public Health Code (*Code de la santé publique*), pharmacies have the monopoly on issuing, selling, preparation and dispensation of all medicines.

The main features of French pharmacy education and training (PET) are:

- The course complies with DIRECTIVE 2005/36/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 September 2005 on the recognition of professional qualifications (hereafter referred to as the “directive”: it is of 6 years duration with a traineeship 15 months (exceeding the 6 months stipulated in the directive)
- There is a highly selective examination at the end of the 1st year (*concours de première année*) with a limited number of places (based on a government-fixed *numerus clausus*) available in the 2nd year. The large numbers of students in the 1st year modifies the teaching methods (e.g. no practicals in the year).
- Recently a 1st year common course together with students in medicine, dentistry, midwifery and physiotherapy has been introduced.
- Professional experience is introduced very early in the course (2nd year) in the form of a 6-weeks traineeship in a community pharmacy. Traineeship continues in the 3rd and 4th years.
- For the first 4 years all students follow the same common course in pharmacy that centres on medical sciences, generic skills (including traineeship), biological and chemical sciences.
- In the 3rd year with the introduction of pre-specialisation courses, students receive guidance and courses on the four career possibilities (community, hospital, industry, or clinical biology). The concepts essential for community, industrial, hospital pharmacy or clinical biology are thus introduced in the 3rd and 4th years.
- Students gain professional experiences during their 2nd, 3rd and 4th years thus enabling them to choose amongst the four main professional practices: community, industry, biology, or hospital, but also scientific research.
- Such pre-specialisation continues in the 4th year and the choice of career is (more or less) final by the start of the 5th year.
- Specialisation from the 5th year onwards offers several possibilities:
 - There is a 2-year course of PET in community or industrial pharmacy (5th and 6th years). In both cases there is a traineeship of (at least) six months full time.
 - There is the possibility of a four-year internship for hospital pharmacists and clinical biologists beginning in the 5th year. For hospital pharmacists and clinical biologists the total length of studies (HEI and residency) is therefore 8 years. The entry requirement for internship is a (very) competitive national examination. Industrial courses and traineeship are also possibly within the internship scheme.

- There is the possibility to follow double degree courses, e.g. graduate with a pharmacy degree and a degree in chemical engineering. The entry requirements for the second degree (e.g. chemical engineering) are interviews and (possibly) a written examination.
- The HEI diploma (Doctor of Pharmacy *Diplôme d'Etat de Docteur en Pharmacie*) is accepted by the French National Council of Pharmacists (FNCP; *Conseil National de l'Ordre des Pharmaciens*) for registration with and membership of the FNCP. There is no supplementary examination besides that set by the HEI.
- To obtain the HEI diploma (Doctor of Pharmacy) the student has to submit a thesis (*thèse d'exercice*), in the form of either a bibliographic presentation or a short experimental research project.
- The doctorate (Ph.D.) is obtained after a three year research programme. This is organised by the doctoral school of the HEI (*Ecole doctorale de l'Université*) and consists of lectures, seminars and experimental research work. The Ph.D. degree is not to be mistaken with the Doctor of Pharmacy (*Diplôme d'Etat de Docteur en Pharmacie*) degree.

The pharmacy profession is subject to many (recent) changes in the roles and responsibilities of pharmacists:

- The laws on:
 - Regional organisation of healthcare: *loi "HPST: hopital-patients-sante-et-territoires*: <http://www.sante.gouv.fr/la-loi-hopital-patients-sante-et-territoires.html> and http://www.sante.gouv.fr/IMG/pdf/Cooperation_entre_professionnels_de_sante_4.pdf
 - Regional healthcare boards (*Agences Régionales de Santé*): <http://www.ars.sante.fr/portail.0.html>
 - Cooperation between healthcare professionals: based on the law *article 131 de la loi n° 2004-806 du 9 août 2004* http://www.sante.gouv.fr/IMG/pdf/Cooperation_entre_professionnels_de_sante_4.pdf
- The decree on the competences of pharmacists to deliver therapeutic information to patients: *Décret n° 2010-906 du 2 août 2010 relatif aux compétences requises pour dispenser l'éducation thérapeutique du patient*: <http://www.legifrance.gouv.fr/affichTexte.do;jsessionid=?cidTexte=JORFTEXT000022664557>
- The report on the roles of community pharmacists in healthcare (*Le pharmacien d'officine dans le parcours de soins*) - rapport Rioli : http://www.uspo.fr/pharmaciens_votez/medias/rapport_rioli.pdf

Introduction

Statistics for France.

Total population: 62,277,432 (2008)

Gross national income per capita (PPP international \$): 33,980

Life expectancy at birth m/f (years): 77/84

Healthy life expectancy at birth m/f (years, 2008): 71/76

Probability of dying under five (per 1 000 live births): 5

Probability of dying between 15 and 60 years m/f (per 1 000): 124/57

Total expenditure on health per capita (Intl \$, 2007): 3,708

Total expenditure on health as % of GDP (2008): 11.2

Figures are for 2006 unless indicated. Source: World Health Statistics 2008

Highlights on health in France.

Health is a major preoccupation for the population and government, as shown by frequent health advertising campaigns.

French women have one of the longest life expectancies in Europe (84 years), whereas men have about the Europe average (77 years). Slightly fewer babies die in their first year of life than in Europe. However, the birth rate is increasing significantly, while the Europe birth rate remains stable. By 2030, one in every four people in France will be 65 years or older.

People in France die less often from major non-communicable diseases than in the rest of Europe. They traditionally experience extremely low mortality for cardiovascular diseases although such diseases are responsible for 27% of deaths. Cancer is another major cause of death (33%). Adult men have one of the highest mortality rates for lung cancer, and this is increasing rapidly among women. The estimated incidence of lung cancer among women is 60% higher than in the rest of Europe.

Although death from injuries in France has become less frequent than in earlier decades, it is still 40% higher than the European average. One third of fatal injuries are due to suicide. Men take their own life three times more often than women.

Mortality from neuropsychiatric disorders is 40% higher than the European average. After retirement age, Alzheimer's disease and other neuro-degenerative diseases account for one third of mortality.

The French smoke 19% fewer cigarettes than their average Europe counterparts. Teenage boys have a higher prevalence than the European average. Alcohol consumption is decreasing in France but remains among the highest in Europe. The mortality related to excessive drinking has decreased faster in France than in Europe but is still higher than average. Although global consumption of alcohol is falling, massive alcoholism over a short period of time among adolescents is a subject of concern (from the institute for research and documentation in health economics,

IRDES "Institut de recherche et documentation en économie de la santé",

<http://www.irdes.fr/Publications/Rapports2006/rap1600.pdf>)

Excess weight is not as common in France that elsewhere in Europe, but overweight still affects 25% of adults and 10% of adolescents. The French consume substantial amounts of fruits and vegetables, but at least one third of the population has insufficient physical activity.

AIDS kills 20% more people in France than on average in Europe, especially adults. Drug abuse and heterosexual contacts with people from countries where AIDS is endemic have constituted the major contributing factors in recent years. About half a million people are infected with hepatitis C; the prevalence among high-risk groups such as injecting drug users is higher than in the general population.

Summarised from:

- WHO "Highlights on health in France", 2004. (<http://www.euro.who.int/document/E88547.pdf>) and
- OECD Health Data 2010 (<http://www.oecd.org/dataoecd/45/20/38980771.pdf>)

Chapter 1. Organization of the activities of pharmacists, professional bodies.

	Y/N or number	Comments
Community pharmacy		
Number of community pharmacists	55455	Mainland France plus overseas departments Statistics from the French National Council of Pharmacists FNCP - <i>Ordre des pharmaciens</i> , 2010
Number of community pharmacies	23133	Mainland France plus overseas departments (FNCP, 2010) On average: <ul style="list-style-type: none"> • 2.5 pharmacists per pharmacy • 2849 inhabitants per community pharmacy
Competences and roles of community pharmacists		According to the French Public Health Code: <ol style="list-style-type: none"> 1. Preparation of drugs for use in human medicine 2. Preparation and sale of dressings and bandages 3. Preparation and sale of first aid kits 4. Sale of: <ol style="list-style-type: none"> a. Drugs b. Medicinal plants c. Essential oils d. Dietetic milk for babies e. Medical devices 5. Preparation of chemicals for pharmaceutical use, for wholesale (not to be sold to the public) (Article L4211-1 of the French Public Health Code (<i>Code de la santé publique</i>))
Ownership of a community pharmacy limited to pharmacists?	Yes	
Rules governing the geographical distribution of community pharmacies?	Yes	As of the 1 st January 2008 : <ul style="list-style-type: none"> • A pharmacy can be opened on the condition that it serves a community with a population of >2500 • A supplementary pharmacy can only be opened in the same area following an additional increase in the population of >3500 • Law on the Financing of the Social Security, 2008 (<i>Loi de financement de la Sécurité Sociale</i> 2008)
Are drugs and healthcare products available to the general public by channels other than pharmacies?	No	The sale of medicines by supermarkets and on the Internet is not allowed. The Ministry of Health is studying the possibility of the sale of non-prescription drugs on the internet by pharmacists owning a community pharmacy; there is no legislation for the moment.
Are persons other than pharmacists involved in community practice?	Yes	
Their titles and number(s)	35000	<i>Préparateur</i> with an average of 35 000 in community pharmacies (http://www.wk-pharma.fr/annonces/html/metier-preparateur-pharmacie-officine/5,5.1/5.1/emploi-preparateur.html) and <i>préparateur en pharmacie hospitalière</i> in hospital pharmacies
Their qualifications		2 year diploma : <i>brevet professionnel - préparateur en pharmacie</i> Possibility to do a 3 rd year in order to become <i>préparateur en pharmacie hospitalière</i>

Organisation providing and validating the E&T		<p>Technical high school (<i>lycée professionnel</i>) and /or Centre for apprenticeship (<i>CFA – Centre de Formation d’Apprentis</i>).</p> <p>Entrance requirements: secondary school certificate (<i>BEP sanitaire et social</i>) or matriculation/general certificate of education (<i>baccalauréat</i> – that also allows access to 1st year of pharmacy in HEI) or equivalent</p> <p>See : <i>Arrêté du 24 novembre 2003 portant modification de l’arrêté du 10 septembre 1997 relatif au brevet professionnel de préparateur en pharmacie</i></p>
Duration of studies	2/3 years	
Subject areas		<p>The programme is an introduction to pharmaceutical sciences :</p> <ul style="list-style-type: none"> • Chemistry • Biology • Applied science • Law applied to pharmacy • Management: stocktaking, stock keeping... • Reimbursement of clients/patients by the social security and assurance companies, buying and selling, billing... • Pharmacopeia • French Public Health Code • Pharmaceutical technology • Preparation of drugs <p>Emphasis is placed on practical training</p>
Competences and roles		<p>The <i>préparateur</i> works under the orders of a qualified pharmacist.</p> <p>S/he can carry out:</p> <ul style="list-style-type: none"> • Dispensation • Stock keeping and stocktaking • Advice to clients on para-pharmaceutical products (sun creams and other products)
Hospital pharmacy		
Does such a function exist?	Yes	
Number of hospital pharmacists	5574	Statistics from FNCP, 2010
Number of hospital pharmacies	2594	Only mainland France – statistics from FNCP, 2010
Competences and roles of hospital pharmacists		<p>The hospital pharmacist practises within a hospital in the internal pharmacy department (<i>Pharmacie à usage intérieur (PUI)</i>)</p> <p>Their responsibilities include:</p> <ul style="list-style-type: none"> • Ensure the safe, appropriate and cost-effective use of medicines. Note that some medicines are available in hospitals but not in community pharmacies. • Dispense drugs and advise patients about the medicines they have been prescribed. • Administrative control of some drugs • Ensure that medicinal products are stored appropriately and securely • Preparation and quality control of sterile medications under special conditions (<i>e.g.</i> intravenous medications, radio-pharmaceuticals, anti-cancer medications, eye drops, <i>etc.</i>)

		<p>Hospital pharmacists may be involved in teaching, both within the hospital pharmacy department and more widely within the hospital. In teaching hospitals, this may include lecturing clinical staff on various aspects of drug treatment.</p> <p>The main differences between community and hospital pharmacists are:</p> <ul style="list-style-type: none"> • Community pharmacists <ul style="list-style-type: none"> ○ work in a private pharmacy ○ have contact with patients ○ dispense packaged drugs ○ are not implicated in the therapeutic choices ○ are paid by the patient or by the insurance system. • Hospital pharmacists <ul style="list-style-type: none"> ○ work in the pharmacy department of the hospital ○ do not always have contact with the patient ○ can dispense single-doses ○ are involved in the therapeutic choices ○ are not involved in the payment and billing process.
Pharmaceutical and related industries		
Number of companies with production, R&D and distribution	41	<p>There are 326 firms that produce at least one medicinal product for human use</p> <p>There are 177 biotechnological firms in the healthcare area.</p> <p>The French Pharmaceutical Industry in figures:</p> <ul style="list-style-type: none"> • Pharmaceutical production: 34,276 million€ • Pharmaceutical exports: 20,915 million€; imports: 16,468 million€ (balance + 4,447 million€) • Research and development: 4,169 million€ • Employment in the pharmaceutical industry: 103,633 • Pharmaceutical market value: 25,501 million€ • Share of generics in market sales: 10 % <p>The above figures are from: “The Pharmaceutical Industry in Figures”. European Federation of Pharmaceutical Industries and Associations, EFPIA, Key figures 2009</p> <p>Expenditure on health care as % GDP: 10.1% Expenditure on medicines as % GDP: 2.1% From OECD health at: http://www.oecd.org/topic/0,3373,en_2649_37407_1_1_1_1_37407,00.html</p>
Number of companies with production only	~260	Around 260 pharmaceutical companies have a manufacture licence (see the French Medicines Agency website : http://www.afssaps.fr/)
Number of companies with distribution only	6	These include very large-scale wholesalers such as <i>Alliance</i> that do wholesale business in many parts of Europe and the world.
Number of companies producing generic drugs only	~10	Around 20 pharmaceutical companies produce generics in France, half of them produce only generics. (see the French Medicines Agency website : http://www.afssaps.fr/)
Industrial pharmacists		
Number of pharmacists working in industry	3454	Plus 1298 working in distribution and exportation Statistics from the FNCP, 2010 (see also the French Medicines Agency website : http://www.afssaps.fr/)
Competences and roles of industrial pharmacists		French law requires that any firm involved in the production, exploitation and /or import of pharmaceutical products <u>must employ a pharmacist who is responsible for observance of the law</u> (<i>pharmacien responsable</i>).

		<p>The <i>pharmacien responsable</i> in France has a statutory position (Article R-5124-36 of the French Public health code) which covers broader responsibilities than those of the EU “Qualified persons” (Directive 2001/83 EC, article 48 corr & Volume IX).</p> <p>The <i>pharmacien responsable</i> position and role are defined by the French Public Health Code. S/he shares company liability with the company’s general manager or CEO. His scope of responsibilities includes public health issues and other matters related to the activities of the company.</p> <p>The <i>pharmacien responsable</i> is appointed by the company board or its equivalent. S/he is a member of the company board, reporting directly to the head of the company; s/he has a “social mandate”. S/he is responsible for quality assurance.</p> <p>The legal job description of the <i>pharmacien responsable</i> is defined in the article R-5124-36 of the fifth chapter of the Public Health Code (<i>livre V du Code de la Santé Publique</i>).</p> <p>The <i>pharmacien responsable</i> organizes, supervises and controls all pharmaceutical activities of all persons involved, in particular:</p> <ul style="list-style-type: none"> ○ Production : monitoring manufacturing, including batch release ○ Follow-up, including management of complaints, potential recalls,...etc ○ Storage ○ Distribution, including conditions of transportation ○ Importation and exportation ○ Pharmacovigilance ○ Medical information ○ Promotion: advertising and training of the sales force ○ Regulatory affairs ○ Pricing ○ Auditing ○ S/he signs marketing authorisation applications and any other documents related to his/her responsibilities ○ Research ; participates in R & D activities (<i>i.e.</i> compliance with medical and pharmaceutical regulation, GCPs,...etc) <p>(Law 92-1279 - 8th December 1992 : “<i>entreprises doivent être soit la propriété d’un pharmacien, soit d’une société à la gérance ou à la direction générale de laquelle participe un pharmacien dans les conditions fixées par décret en Conseil d’Etat.</i>”)</p>
Other sectors		
Number of pharmacists working in other sectors	10309	Of which 8498 are registered by the FNCP (FNCP, 2010)
Sectors in which pharmacists are employed		<ul style="list-style-type: none"> ● Clinical biology (8185) ● Oxygen dispensation (287) ● Assurance companies (152) ● Consulting pharmacists for social insurance (“<i>Pharmacien conseil de la sécurité sociale</i>”) (152) ● Fireman (78) and mobile units (54) ● Family planning (76) ● Radio-pharmacists (66)

		<ul style="list-style-type: none"> • Labile blood products (48) • Professors and teaching staff • Pre-clinical and clinical research workers • Wholesalers • Humanitarian aid • Medical devices • Military pharmacist (<i>Pharmacien du service des armées</i>) • Journalists • Others
Roles of professional associations		
Registration of pharmacists	Yes	<p>According to law the FNCP groups all pharmacists working in France (article L 4231-1 of the Public Health Code).</p> <p><u>Organisation.</u> The Council is divided into seven sections. Pharmacists are registered with one or more sections according to their place and type of work:</p> <ul style="list-style-type: none"> • Section A : community pharmacists that own a pharmacy • Section B : pharmacists working in industry • Section C : wholesalers • Section D : community pharmacists who are employed in a pharmacy or as a manager of other kinds of pharmacy • Section E : pharmacists in overseas departments • Section G : clinical biologists • Section H : hospital pharmacists <p><u>Missions of the FNCP.</u></p> <ul style="list-style-type: none"> • Control of the conditions of pharmaceutical practice • Ensuring the respect of the code of conduct • Ensuring the honour and independence of the profession • Ensuring the competence of pharmacists • Contributing to the promotion of public health and the quality of healthcare • Organising the keeping of pharmaceutical records • Representing the profession before the government and other public authorities
Creation of community pharmacies and control of territorial distribution	Yes	<p>Article of Law on the Financing of the Social Security, 2008 (<i>Loi de financement de la Sécurité Sociale 2008</i>)</p> <p>See also:</p> <ul style="list-style-type: none"> • http://www.assemblee-nationale.fr/13/dossiers/plfss_2011.asp • http://www.legifrance.gouv.fr/.affichCode.do?idArticle=LEGIARTI000022055136&idSectionTA=LEGISCTA000006196571&cidTexte=LEGITEXT000006072665&dateTexte=20110131
Ethical and other aspects of professional conduct	Yes	<p>Articles R4235-1 to R 4235677 of the Public Health Code (<i>Code de déontologie</i>) http://www.ordre.pharmacien.fr/fr/bleu/index1_4.htm</p>
Quality assurance and validation of HEI courses for pharmacists	No	

References and websites	
Texts and articles of national law	<p>Competences and role of industrial pharmacists: Public Health Code (<i>Code la Santé Publique</i>) : articles R 5124-34 and following</p> <p>Competences and role of hospital pharmacies: Public Health Code (<i>Code la Santé Publique</i>) : articles R-5126-8 and following</p> <p>Registration of pharmacists: Public Health Code (<i>Code la Santé Publique</i>) : article L4222-1</p>
French law	www.legifrance.gouv.fr
French pharmaceutical industry (<i>Les entreprises du médicament – LEEM</i>)	http://www.leem.org/medicament/accueil.htm
French Ministry of Education	http://www.education.gouv.fr/
National academy of Pharmacy (<i>Académie nationale de pharmacie</i>)	http://www.acadpharm.org/
French national Council of Pharmacy (<i>Ordre national des pharmaciens</i>)	http://www.ordre.pharmacien.fr
The EURYDICE database on education systems in Europe (Finland)	http://eacea.ec.europa.eu/education/eurydice/documents/eurybase/national_summary_sheets/047_FI_EN.pdf
ECORYS: “Study of regulatory restrictions in the field of pharmacies”. ECORYS Nederland BV, 22 June 2007.	http://ec.europa.eu/internal_market/services/pharmacy_en.htm
European Federation of Pharmaceutical Industries and Associations (EFPIA)	www.efpia.eu/Content/Default.asp?PageID=317
Pharmaceutical Group of the EU (PGEU)	http://www.pgeu.org/
European Association of Hospital Pharmacists (EAHP)	http://www.eahp.eu/
European Industrial Pharmacists’ Group (EIPG)	http://www.eipg.eu/
European Hospital and Healthcare Federation (HOPE)	http://www.hope.be/
WHO health statistics	www.who.int/whosis/en/index.html

Chapter 2. Pharmacy HEIs, students and courses

	Y/N, number	Comments
Total number of HEIs France	24	<ol style="list-style-type: none"> 1. Amiens 2. Angers 3. Besançon 4. Bordeaux 5. Caen 6. Clermont-Ferrand 7. Dijon 8. Grenoble 9. Lille 10. Limoges 11. Lyon 12. Marseille 13. Montpellier 14. Nancy 15. Nantes 16. Paris V 17. Paris XI 18. Poitiers 19. Reims 20. Rennes 21. Rouen 22. Strasbourg 23. Toulouse 24. Tours <p>Click on a given name to go to HEI website.</p>
Public	24	
Organisation of HEIs		
Independent faculty	Yes	21/24
Attached to a medical faculty		Three faculties are mixed medicine and pharmacy faculties: <ol style="list-style-type: none"> 1. <i>U.F.R. de Médecine – Pharmacie de Rouen</i> 2. <i>UFR Sciences Médicales et Pharmaceutiques - Université de Franche Comté (Besançon)</i> 3. <i>Faculté de Médecine et de Pharmacie de Poitiers</i>
Do HEIs offer B + M degrees?	No	For the moment, the French pharmacy curriculum is not organized into two degrees B and M. Students may follow a Master degree in the HEI during and in parallel with their Pharmacy curriculum, but this is not a M.Pharm.
France		
Teaching staff		
Number of teaching staff	N/A	
Students		
Places at entry following secondary school	No limit	According to French law, any student with a <i>baccalauréat</i> (matriculation/school leaving certificate) has the right to enter any university department or faculty within the <i>académie</i> (regional education authority) of her/his place of residence.

<p><i>Numerus clausus</i> (number accepted in 2nd year after competitive examination)</p>	<p>3090 (2009 – 2010)</p>	<ol style="list-style-type: none"> 1. Amiens : 88 2. Angers : 75 3. Besançon : 70 4. Bordeaux : 137 5. Caen : 95 6. Clermont-Ferrand : 92 7. Dijon : 82 8. Grenoble : 97 9. Lille : 205 10. Limoges : 67 11. Lyon : 223 12. Marseille : 191 13. Montpellier : 188 14. Nancy : 126 15. Nantes : 102 16. Paris V : 266 17. Paris XI : 266 18. Poitiers : 71 19. Reims : 90 20. Rennes : 110 21. Rouen : 85 22. Strasbourg : 121 23. Toulouse : 137 24. Tours : 106 <p>A further 8% of the total number of places in the 2nd year (247) can be occupied by students from the EU, Andorra and/or Switzerland provided they pass the examination at the end of the 1st year.</p> <p>This gives a total of 3337.</p>
<p>1st year – “<i>PACES</i>”</p>	<p>As from September 2010, the 1st year of pharmacy studies is common with medicine, dentistry, midwifery and physiotherapy: first year of common studies in healthcare <i>Première Année Commune aux Etudes de Santé – PACES</i>.</p> <p>For midwifery and physiotherapy entrance into the technical high school is dependent on success in the PACES examination; for medicine and pharmacy entrance into the 2nd year of studies is dependent on success in the PACES examination.</p> <p>http://www.enseignementsup-recherche.gouv.fr/cid28628/la-loi-sur-la-1ere-annee-commune-des-etudes-de-sante-en-vigueur-a-la-rentree-2010-2011.html</p> <p>In many faculties it appears that the total number of students has fallen by 5 to 10% compared to previous years when the examinations for the 5 subjects were separate.</p> <p>An example of the organisation of the common first year of study (Lille) can be found at http://medecine.univ-lille2.fr</p> <p>The total number of students entering the 2nd year is equivalent to the <i>numerus clausus</i> of 3090 for 2011.</p> <p>See: <i>Arrêté du 21 janvier 2010 fixant le nombre des étudiants de première année du premier cycle des études pharmaceutiques autorisés à poursuivre leurs études en pharmacie à la suite des épreuves terminales de l'année universitaire</i></p>	

		2009-2010 http://www.legifrance.gouv.fr/jopdf/common/jo_pdf.jsp?numJO=0&dateJO=20100127&numTexte=35&pageDebut=01671&pageFin=01671
Number of graduates that become registered/professional pharmacists.		All graduates from a pharmacy HEI in France are pharmacists. About 3000 students each year will become graduates/pharmacists. Eighty-eight % of them will register with the FNCP (http://www.ordre.pharmacien.fr/presse/pdf/communiqu24-06-10.pdf)
Number of international students		Less than 5%
Entry requirements following secondary school		
Specific pharmacy-related, national entrance examination	No	Any student who successfully passes the <i>baccalauréat</i> (matriculation/school leaving certificate) has the <u>legal</u> right to enter any university department or faculty within the <i>académie</i> (regional education authority) of his place of residence.
Advanced entry		
At which level?		A restricted number of places are available at the beginning of 3 rd year for students from science faculties with (at least) a master degree.
Fees per year		
For all students	174 €	Fees are equal in all public faculties in France.
Length of course	6 years	
Specialization		
Do HEIs provide specialized courses?	Yes	
In which years?	3 through 8	
In which specialisation		Industry, Hospital, Clinical Biology, Community Pharmacy
Past and present changes in E&T		
Major changes since 1999	Yes	<u>Staff.</u> As from 2006, in addition to the rank of professor (<i>PU, professeur des universités</i>) and assistant-professor/lecturer (<i>MCF, maître de conférences</i>), two other ranks have been created (<i>décret d'application du 23 mai 2006 de la loi du 17 janvier 2002</i>): <ul style="list-style-type: none"> • <i>PU-PH</i>: University professor-hospital pharmacy practitioner (<i>professeur des universités-praticien hospitalier (PU-PH) des disciplines pharmaceutiques</i>) • <i>MCU-PH</i>: assistant-professor/lecturer-hospital pharmacy practitioner (<i>maître de conférences-praticien hospitalier (MCU-PH) des disciplines pharmaceutiques</i>) For pharmacists wishing to teach at a university and have a position in the university teaching hospital, this law gives pharmacists the right to the same status as medical doctors. See: <ul style="list-style-type: none"> • <i>Loi de modernisation sociale n° 2002-73 du 17 janvier 2002, art. 64, 65</i> • <i>Intégration de la Pharmacie au CHU :</i>

		<p>http://adiph.org/acophra/r021008c.pdf and http://www.synprefh.org/documents/projet-revision-statut-ph_20100222.pdf</p> <p><u>Universities:</u> A new law on university autonomy (<i>Loi LRU : Loi relative aux libertés et responsabilités des universités publiée au Journal officiel n°185 du 11 août 2007</i>) gives more liberty and responsibilities to universities. See: http://www.nouvelleuniversite.gouv.fr/IMG/pdf/loi100807universites.pdf</p> <p>Albeit, the programme of Pharmacy studies remains unchanged (<i>Arrêté du 17 juillet 1987 modifié relatif au régime des études en vue du diplôme d'Etat de docteur en pharmacie</i> http://www.ordre.pharmacien.fr/fr/pdf/A170787.pdf</p>
Major changes envisaged before 2019	Yes	<p>One major change envisaged is the introduction of a <u>Bologna-type organisation of studies</u> (application of the so-called <i>LMD: licence-master-doctorat</i>) in health sciences together with a greater degree of <u>integration between pharmacy, medicine, dentistry and other areas</u> such as midwifery and physiotherapy.</p> <p>The first step of this process (September 2010) was the replacement of the 1st year of pharmacy studies with the <i>PACES - Première Année Commune aux Etudes de Santé</i> (see above). This has also been called the <i>L1-santé</i> (B1 health sciences) year – a precursor of the other <i>licence/bachelor</i> years (<i>L2</i> and <i>L3</i>) to come. The programme has been modified at the national level, for the first year, and the programmes of the second and third years will be introduced gradually each year, according to the new regulations</p> <p>In Lille and several other HEIs, the first common year in medicine, dentistry and midwifery studies already existed; now pharmacy has been added.</p> <p>The <i>PACES</i> involves a large number of students (in Lille about 3,000) and this requires strict organisation, and strict observance of student equality.</p> <p><i>PACES</i> answers a request by the European Pharmacy Students' Association that at some stage of their university careers pharmacy students should spend some time studying and working with their counterparts in medicine. Within the <i>PACES</i> system 90% of lectures and tutorials are common, 10% are on specifically pharmacy subjects.</p> <p>See:</p> <ul style="list-style-type: none"> • “The French reform of pharmaceutical teaching” by P. Fagnoni, J-P Belon, Country Focus, <i>EJHPPpractice</i>, Vol.16, 2010/2 • <i>Arrêté du 28 octobre 2009 relatif à la première année commune aux études de santé</i> http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000021276755&dateTexte • <i>PACES</i> http://paces.univ-lille2.fr/ and http://paces.univ-lille2.fr/fileadmin/user_upload/organisation/livret-paces2010-2011.pdf

Lille		
Students		
Number of students in the 1 st year	700	<p><i>Numerus clausus</i> for Lille is 205 in 2011.</p> <p>As a consequence of the creation of the <i>PACES</i> the <i>numerus clausus</i> for Lille is divided into two parts :</p> <ul style="list-style-type: none"> • 195 student place for the <i>Faculté des Sciences pharmaceutiques et biologiques de Lille 2</i> • 10 student places for the <i>Institut catholique de Lille</i> (http://www.icl-lille.fr/) <p>The presence of pharmacy in a catholic institute is specific to Lille.</p>
Number of international students		< 3%
Specialization		
Student numbers in each specialization		<p>Community pharmacy : 145</p> <p>Clinical Biology: 30 (20 students/year pass the <i>Internat</i>)</p> <p>Industry : 30</p>
Teaching staff		
Teaching staff (nationals)	135	
International teaching staff (from EU MSs)	5	
International teaching staff (non EU)	1	
Number professionals (pharmacists and others) from outside the HEIs, involved in E&T		<p>8 part-time associate/invited assistant professors/lecturers (<i>Maitres de conférences invités</i>)</p> <p>An average of 20 professionals give from 1 to 20 lectures in their professional area, mostly industrial pharmacists and 5 community pharmacists</p>
Is Lille typical of all French HEIs?	Yes	Except the presence of the <i>Institut catholique de Lille</i>

References and websites	
<i>Les chiffres de la démographie pharmaceutique</i>	French Ministry of Education http://www.education.gouv.fr/

Chapter 3. Teaching and learning methods (Lille)

Student hours						
Method	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
HEIs courses						
Lecture	448 (PACES 401)	286	342	330	50 + specialisation	According to specialisation
Tutorial	108 (PACES 45)	84	50	31	10 + specialisation	
Practical	0	253	171	185	According to specialisation	
Project work	0	0	According to specialisation			
Traineeship						
Hospital	0	Two months in community pharmacy <u>Compulsory</u> (320)	Two weeks in community pharmacy <u>Compulsory</u> (80)	Two weeks in community pharmacy <u>Compulsory</u> (80)	Twelve months (half- time) or six months full time in hospital <u>Compulsory</u> (960)	First year of 4 years of internship
Community	0	Two months in community pharmacy <u>Compulsory</u> (320)	Two weeks in community pharmacy <u>Compulsory</u> (80)	Two weeks in community pharmacy <u>Compulsory</u> (80)	Twelve months (half- time) or six months full time in hospital <u>Compulsory</u> (960)	Six months in a community pharmacy <u>Compulsory</u> (960)
Industrial (industry or HEI)	0	Two months in community pharmacy <u>Compulsory</u> (320)	Two weeks in community pharmacy <u>Compulsory</u> (80) and two months in Industrial Pharmacy <u>Optional</u> (320)	Two weeks in community pharmacy <u>Compulsory</u> (80)	Twelve months (half- time) or six months full time in hospital <u>Compulsory</u> (960)	Six months in a pharmaceutical industry <u>Compulsory</u> (960)

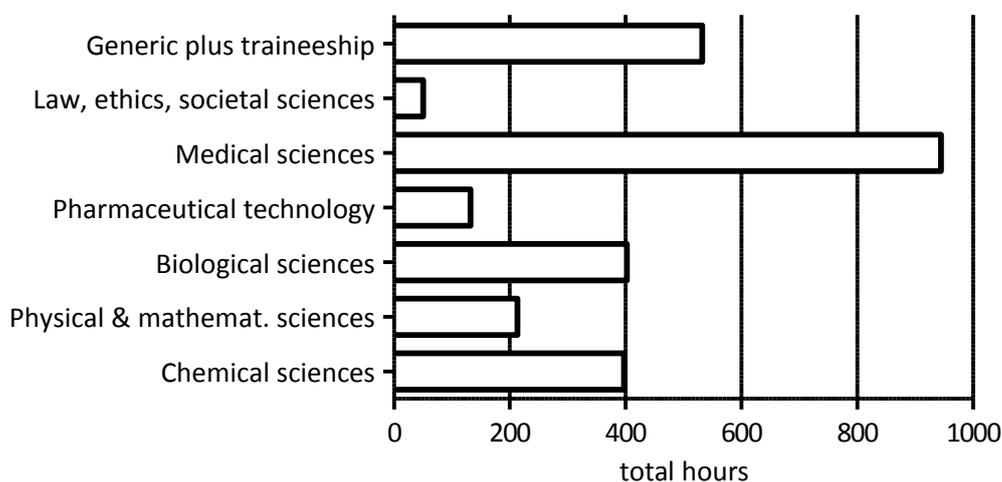
References and websites	
Texts and articles of national law	<p><i>Arrêté du 17 juillet 1987 modifié relatif au régime des études en vue du diplôme d'Etat de docteur en pharmacie</i></p> <p>http://admi.net/jo/20031002/MENS0301923A.html</p> <p>http://www.enseignementsup-recherche.gouv.fr/cid53276/les-etudes-de-sante.html#Les%20études%20en%20pharmacie</p>
Website FNCP	http://www.ordre.pharmacien.fr/fr/pdf/A170787.pdf

Chapter 4. Subject areas (Lille)

Student hours - years 1 through 4: Common course in pharmacy (average values)

Subject area	Year 1	Year 2	Year 3	Year 4	Total
CHEMSCI	109	162	73	53	397
PHYSMATH	98	100	15	0	213
BIOLSCI	208	123	38	33	402
PHARMTECH	20	42	47	23	132
MEDISCI	96	140	337	371	944
LAWSOC	25	0	0	25	50
GENERIC	0	40	42	30	112
GENERIC + TRAINEESHIP	0	320	112	100	532
Total	556	887	622	605	2670

Student hours - years 1 through 4: Common course in pharmacy



Student hours - years 3 and 4 : pre-specialisation

During the years 3 and 4, students choose to follow courses (80-90 hours selected from subject areas below) as a pre-specialisation towards community pharmacy, industrial pharmacy or internship, leading to clinical biology and hospital pharmacy .

	Community pharmacy	Internship	Industrial pharmacy
CHEMSCI	0	8	80
PHYSMATH	13	7	0
BIOLSCI	0	38	0
PHARMTECH	0	14	100
MEDISCI	100	65	0
LAWSOC	0	0	0
Optional traineeship	0	0	2 months

Student hours - years 5 and 6 : specialisation

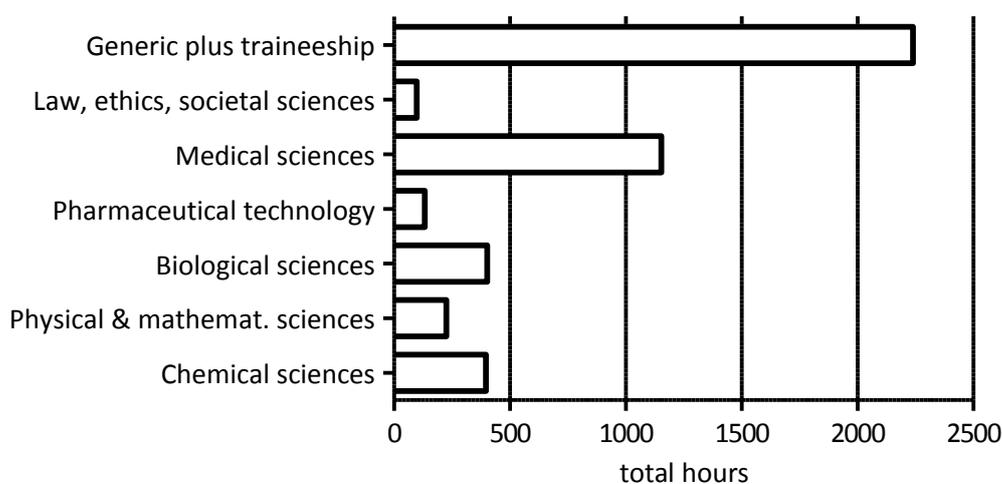
During the years 5 and 6, students choose to follow courses (320-360 hours selected from subject areas below) as a specialisation towards their chosen career : community pharmacy, industrial pharmacy, hospital pharmacy or clinical biology. For hospital pharmacy and clinical biology students need to choose the internship (see below).

	Community pharmacy	Internship	Industrial pharmacy
CHEMSCI	0	9	8
PHYSMATH	0	5	15
BIOLSCI	0	0	0
PHARMTECH	0	0	100
MEDISCI	110	105	105
LAWSOC	48	0	100
GENERIC	28	0	22

Student hours – community pharmacy

Subject area	Years 1-4 common	Years 3 & 4	Years 5 & 6	Total
CHEMSCI	397	0	0	397
PHYSMATH	213	13	0	226
BIOLSCI	402	0	0	402
PHARMTECH	132	0	0	132
MEDISCI	944	100	110	1154
LAWSOC	50	0	48	98
GENERIC	112		28	140
GENERIC + TRAINEESHIP	532		1792	2240
Total	2670	113	1866	4649

Student hours – community pharmacy, years 1 through 6



Subjects :

CHEMSCI : Chemical sciences

PHYSMATH : Physical and mathematical sciences

BIOLSCI : Biological sciences

PHARMTECH : Pharmaceutical technology

MEDISCI : Medical sciences

LAWSOC : Law, ethic and societal sciences

Internship.

Students wishing to practice in the field of clinical biology or hospital pharmacy will choose to follow the pre-internship_programme during the fifth year; this programme is in preparation for the competitive entrance examination to the 4-year internship. The examination is compulsory in order to follow a four year cycle of internship. This examination is based on the general programme of the first four years of pharmacy studies (*Formation commune de base*). The internship is compulsory for careers in hospital or in (private) clinical biology laboratories. The internship can lead to research and teaching at an HEI.

Internship consists of a four year practical and theoretical programme taught by hospitals and universities, leading to a Diploma of specialized studies (*Diplôme d'Etudes Spécialisées – D.E.S.*).

References and websites	
Texts and articles of national law	<p><i>Arrêté du 24 août 2009 portant organisation des concours et détermination des interrégions d'internat de pharmacie et organisation de la procédure de choix de poste :</i> http://www.legifrance.gouv.fr/./affichTexte.do?cidTexte=JORFTEXT000021089971&fastPos=1&fastReqId=2715289&categorieLien=cid&oldAction=rechTexte</p> <p><i>Décret n°88-996 du 19 octobre 1988 relatif aux études spécialisées du troisième cycle de pharmacie (Version en vigueur au 28 février 2011)</i> http://www.legifrance.gouv.fr/affichTexte.do;jsessionid=222174EE38C2A6401683EF0FEFF5C2ED.tpdjo11v_3?cidTexte=LEGITEXT000006066964&dateTexte=20110228 http://editions.campusfrance.org/filieres/en/pharmacie_en.pdf</p> <p><i>Arrêté du 31 octobre 2008 réglementant les diplômes d'études spécialisées de Pharmacie :</i> http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000019917443 http://www.nord-pas-de-calais.sante.gouv.fr/metiers/medical/internat_pharma2009/texte/arrete_31oct08.pdf</p>
Lille student handbook	http://pharmacie.univ-lille2.fr/scolarite.html
Internship	
<i>Centre national des concours d'internat</i>	http://www.cnci.univ-paris5.fr/cnci_ph/
<i>L'Internat et les Diplômes d'Etudes Spécialisées (D.E.S.)</i>	http://www-fac-pharma.u-strasbg.fr/etudes_de_pharmacie/internat.php

Chapter 5. Impact of the Bologna principles (Lille)

Bologna principle	Is the principle applied? Y/N or partially	How is it applied? Does your HEI have multilateral recognition and agreements? Other comments.
1. Comparable degrees / Diploma Supplement	No	<i>Circa</i> 25 ERASMUS inter-HEI agreements have been signed. No diploma supplement is issued.
2. Two main cycles (B and M) <u>with entry and exit at B level</u>	No	Students may follow a science master degree in parallel with Pharmacy curricula. The entry at the beginning of B3 is possible in some rare cases.
3. ECTS system of credits / links to LLL	Yes	All courses are categorized in ECTS. Links to post-registration LLL/CLP are yet to be established.
4. Obstacles to mobility	Partially	Students ask the Lille Erasmus coordinator for mobility towards one of the European HEIs having signed an agreement with Lille. The coordinator has to approve the student project and a programme of studies and establish a learning agreement. Students are allowed up to a maximum of a one year mobility and of the validation of 60 ECTS. At the end of their mobility the Lille jury will decide upon the validation. There are adequate mobility possibilities. A special difficulty arises for those students wishing to pass the Internat inter-regional examination (leading to internship and careers in hospital pharmacy and clinical biology) as the programme for this examination is a unique French national programme. Finance: The coordinator will organize only mobility with an HEI that has signed an agreement of free exchange. If the student wishes to study in a HEI that demands that fees be paid, s/he will not receive a learning agreement. Most of students will receive a mobility grant (Erasmus grant) Lodging: in-coming students can ask the International office of Lille 2 for a residence: www.univ-lille2.fr/.../international/le-service-des-relations-internationales.html Out-going students have difficulties with the high cost of lodging in some countries Language: in-coming students are encouraged to come for a full university year, so as to have enough time to perfect their understanding of French before examinations. The coordinator enquires about the level of the student before accepting his candidature, but no academic evaluation in French is required. For out-going students the level in English for those going to the UK is high.

		They pass the International English Language Testing System, IELTS (http://www.ielts.org/default.aspx) and for this they receive intensive preparation by the English teacher in the faculty of Pharmacy. The University offers courses in Spanish.	
5. European QA	No		
6. European dimension		There is some mobility of teaching staff within the Erasmus programme or various research programmes and this facilitates collaboration and gives an European dimension to Lille, especially in the programmes at the master level (years 5 and 6). Examples can be found in the pharmaceutical technology and other programmes for industry.	
ERASMUS staff exchange to Lille from elsewhere		Staff months: 1 to 2	Four staff members x one week and several short periods
ERASMUS staff exchange from Lille to other HEIs		Staff months: 1 to 2	Four staff members x one week and several short periods
ERASMUS student exchange to Lille from elsewhere		Student months: 180	Ca 25 ERASMUS students per year come to Lille for periods of 3 to 10 months.
ERASMUS student exchange from Lille to other HEIs		Student months: 90	Ca 10 Lille students go to other HEIs for 9 month periods.

Chapter 6. Impact of EC directive 2005/36/EC

The directive states	How does / will this directive statement affect pharmacy E&T?
“Evidence of formal qualifications as a pharmacist shall attest to training of at least <u>five years' duration</u> ,...”	This applies.
“... <u>four years of full-time theoretical and practical training</u> at a university or at a higher institute of a level recognised as equivalent, or under the supervision of a university;”	This applies.
“... <u>six-month traineeship in a pharmacy</u> which is open to the public or in a hospital, under the supervision of that hospital's pharmaceutical department.”	This applies.
“The balance between theoretical and practical training shall, in respect of each subject, give <u>sufficient importance to theory to maintain the university character of the training</u> .”	This applies.
Directive annex	Comments
V.6. PHARMACIST 5.6.1. Course of training for pharmacists Plant and animal biology / Physics / General and inorganic chemistry / Organic chemistry / Analytical chemistry / Pharmaceutical chemistry, including analysis of medicinal products / General and applied biochemistry (medical) / Anatomy and physiology; medical terminology / Microbiology / Pharmacology and pharmacotherapy / Pharmaceutical technology / Toxicology / Pharmacognosy / Legislation and, where appropriate, professional ethics.	All these aspects are taken into consideration and all the subjects mentioned are taught.

GLOSSARY and ACRONYMS

ARS : Agences régionales de Santé

DP : Dossier pharmaceutique

FNCP : French National Council of Pharmacists (CNOP : Conseil national de l'Ordre des Pharmaciens)

HEI : Higher Education Institution

Loi HPST : Loi Hopital Patients Santé et Territoire. Journal Officiel le 22 juillet 2009.

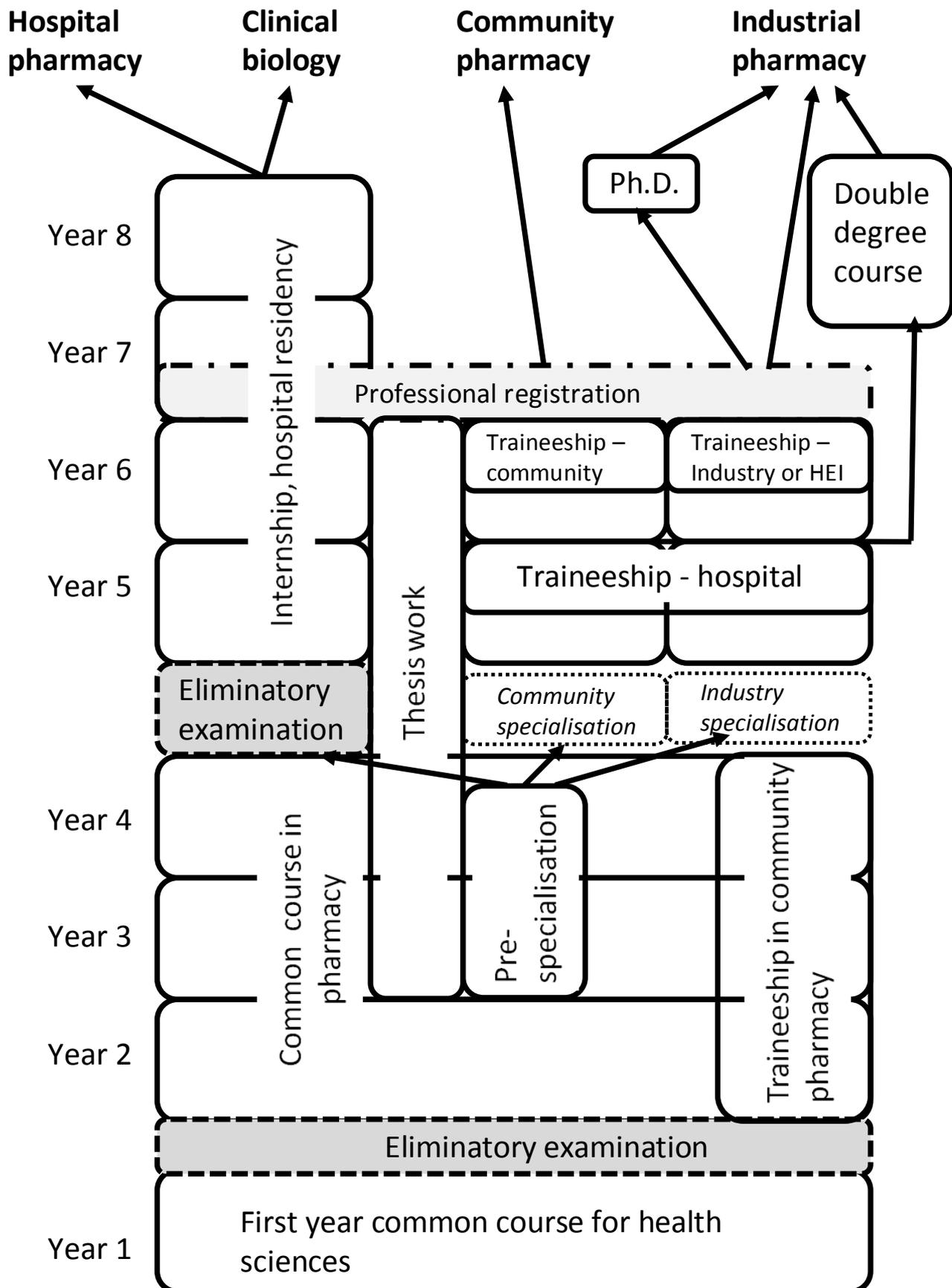
IRDES: Institut de recherche et documentation en économie de la santé

MCU-PH : Assistant professor/lecturer-hospital pharmacy practitioner

PACES : Première Année Commune aux Etudes de Santé

PU-PH : University professor-hospital pharmacy practitioner

The French pharmacy education and training scheme





PHARMINE
*Pharmacy Education
in Europe*

PCN

*Pharmacolor
Consultants
Nancy*



Université Lille Nord de France
Pôle de Recherche
et d'Enseignement Supérieur



Université Lille 2
Droit et Santé

Nancy-Université
Université
Henri Poincaré



UNIVERSITY OF TARTU



Vrije
Universiteit
Brussel

PHARMINE

Coordinator: Bart Rombaut, School of Pharmacy, Vrije Universiteit Brussel, Brussels, Belgium. brombaut@vub.ac.be
Executive Director: Jeff Atkinson, Pharmacolor Consultants Nancy, Villers, France. jeffrey.atkinson@orange.fr

With the support of the Lifelong Learning Programme of the European Union
(142078-LLP-1-2008-BE-ERASMUS-ECDSP).

Website: www.pharmine.org