

Pharmacy education & training in

BULGARIA

2012 – Version 2

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. The PHARMINE paradigm can be found here (we will include a web reference to the PHARMINE paradigm text).

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: http://www.pharmine.org/losse_paginas/Country_Profiles/)

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The second version of WP7 survey Bulgaria was produce by Vice-dean V. Petkova in July 2012.

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Validation of the first version of the survey:

This document was validated by the Bulgarian Pharmaceutical Union



President:.....
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<http://bphu.eu/index.php>

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Summary.

Pharmacies in Bulgaria have a monopoly on the dispensing of medicinal products, authorised in the Republic of Bulgaria on or without medical prescription, as well as medical devices, food additives, cosmetic, and sanitary-hygienic articles.

Aptekari, who act as responsible pharmacists, pharmacy owners and managers follow a 5-year (M.Sc.Pharm.) degree course with a 6 months' traineeship. *Pomoshnik-farmaceuti*, who follow a 3 year degree course (also with 6 months' traineeship) can prepare medicines and can dispense OTC medicines in Bulgaria under the supervision of a pharmacist (M.Sc. Pharm.)

The first and second year of the university study for the pharmacists are devoted mainly to chemical sciences, mathematics, botany and medical sciences. Years 3 and 4 centre on pharmaceutical technology, pharmacology, pharmacognosy, pharmaco-economics and social pharmacy, year 5 on pharmaceutical care, patient counselling, pharmacotherapy and medical sciences. A six months traineeship finishes the 5th year together with preparation of a Master's thesis and the 4 state examinations with which university studies typically end.

Industrial pharmacy and clinical (hospital) pharmacy are integrated disciplines at the Faculty of Pharmacy-Sofia, Bulgaria.

Introduction.

Statistics (01.02.2011 unless indicated)

Total population: 7 364 570

Gross national income per capita (PPP international \$): 11,180

Life expectancy at birth m/f (years): 70/77.2

Healthy life expectancy at birth m/f (years, 2003): 63/67

Probability of dying under five (per 1 000 live births): 12

Probability of dying between 15 and 60 years m/f (per 1 000 population): 219/93

Total expenditure on health per capita (Intl \$, 2006): 741

Total expenditure on health as % of GDP (2006): 6.9

From the WHO Statistical Information System (WHOSIS) (<http://www.who.int/whosis/en/index.html>)

See also: [World Health Statistics 2008](#), www.nchi.government.bg

WHO estimates that a person born in Bulgaria in 2003 can expect to live 72 years on average: 76 years if female and 69 years if male. WHO also estimates that Bulgarian people spend 9.6% (7 years) of their lives on average with illness and disability. The infant mortality rate and both its components (neonatal and postnatal mortality rates) increased in Bulgaria between 1988 and 1997 and then decreased. Bulgaria's maternal mortality rate shows substantial variation over time. The maternal mortality rate reported may be underestimated, though; according to WHO/United Nations Children's Fund/United Nations Population Fund estimates for the year 2000, the rate in Bulgaria was about 32 maternal deaths per 100 000 live births, while the nationally reported rate was 18 maternal deaths per 100 000 live births. Between 1990 and 2002, Bulgaria's maternal mortality rate fell by 17%.

The main non-communicable diseases accounted for about 86% of all deaths in Bulgaria (of all deaths, 65% were caused by diseases of the circulatory system and 14% by cancer). External causes accounted for about 4% of all deaths and communicable diseases for less than 1%. Mortality rates place Bulgaria in the upper half of the European countries.

From the WHP "Highlights on health in Bulgaria", 2005 (<http://www.euro.who.int/Document/E88390.pdf>)

See also:

Health Systems in Transition – Bulgaria, Vol. 14 No. 3 2012 at:

http://www.euro.who.int/_data/assets/pdf_file/0006/169314/E96624.pdf

The economic, political and social changes in Bulgaria, since 1989 have an important impact on all aspects of social life in the country as well as on pharmaceutical activities. Until 1989, the pharmaceutical system was centralized - community pharmacies, hospital pharmacies, wholesalers, pharmaceutical works and institutes were owned by the state. The import and export of drugs were controlled by the state.

After the changes in 1989, the Bulgarian pharmaceutical system is oriented towards the private sector. Community pharmacies, wholesalers, and many drug manufacturers are all private. The first Bulgarian Law on drugs and pharmacies in human medicine was introduced in 1995. It lays out the structure for harmonization of Bulgarian drug regulatory affairs with those of the European Union. All these specific circumstances, together with – on a more global level - new drug discoveries, new pharmaceutical technologies and methodologies are a constant challenge leading reconsideration of the role of pharmacists in the Bulgarian health care system. Before these changes the Bulgarian pharmacists used their skills to manufacture drugs in the pharmacy. Now, pharmacists apply different skills that require a detailed knowledge of communications and human behaviour in order to scientifically dispense medications, to counsel patients about their health, the proper application of their prescribed and OTC drugs. They are also responsible for monitoring patients, in order to avoid adverse drug reactions and to achieve maximum benefit from the treatment. A very recent development is the implementation of the concept of “Pharmaceutical care” as a central element of pharmacy practice. The Medical University in Sofia, Bulgaria consists of three Faculties: medicine, dentistry and pharmacy.

The pharmacy faculty is the oldest in Bulgaria that educates pharmaceutical specialists. The duration of the education is 5 years for community, hospital and industrial pharmacists. All the graduates receive a “Master of Pharmacy” degree. One hundred to one hundred and twenty Bulgarian and 25-30 foreign students are accepted for training every year. There are 6 departments in the Faculty of Pharmacy:

A/ Pharmaceutical Technology and Bio-pharmacy

B/ Pharmacognosy and Pharmaceutical Botany

C/ Pharmaceutical Chemistry

D/ Chemistry

E/ Pharmacology and Toxicology

F/ Social Pharmacy

After graduation students can specialize for a further 3 years. Whilst working in a hospital or industrial environment, they follow a study program and 2 weeks per year they have courses at the Faculty of Pharmacy. After the 3rd year they pass a state examination in a given speciality.

Since 1989 there have been many changes in the curriculum of the Faculty of Pharmacy in order to tune courses and diplomas with those of the other schools in the EU. Many new aspects and study areas have been

introduced such as: bio-pharmacy, clinical laboratory testing and analysis, biology and many others. In the special case of the Department of Social Pharmacy many new study areas have been introduced such as: history of pharmacy, pharmaco-epidemiology, pharmaco-economics, pharmaceutical law, pharmaceutical marketing and pharmaceutical management. In 2000 a new course in pharmaceutical care was introduced. The lectures and seminars on this latter subject are given during the first semester of the fifth year. The lectures synthesize the knowledge gained during the 5-year pharmacy course and blend this with new communication skills and the development of the logic of pharmaceutical care. University lecturers together with the help of pharmacy practitioners, provide the training.

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

	Y/N, number or %	Comments.
Community pharmacy		
Pharmacists	5500-6000	1300 inhabitants / pharmacist
Pharmacies	4500	1.2 – 1.3 pharmacists per pharmacy 1700 inhabitants / pharmacy
Competences and roles of community pharmacists		After graduation from the University the pharmacists can work in a pharmacy and can perform drug preparation, dispensing of drugs and consulting patients on the proper drug treatment and pharmaceutical care plan: identifying drug-related problems, making a plan for proper drug treatment, monitoring of the treatment, etc.
Is ownership of a community pharmacy limited to pharmacists?	No	A natural or legal person registered as a trader under the Bulgarian legislation or under the legislation of an EU Member State, who has signed a labour contract or a contract for management of a pharmacy with a master of pharmacy, and in the cases provided under the law – with an assistant pharmacists (this is in the cases that in the settlement there is no master of pharmacy who can manage a pharmacy until the coming of master of pharmacy and there should be dispensed only OTC drugs) shall be entitled to carry out retail trade in medicinal products. One person may open not more than 4 pharmacies on the territory of the Republic of Bulgaria. http://old.bda.bg/bda_old/web_engl/main.htm
Rules on geographical distribution of pharmacies?	No	
Are drugs and healthcare products available to the general public by channels other than pharmacies?	No	Medicinal products, medical devices authorised in Republic of Bulgaria on or without medical prescription, as well as food additives, cosmetic, and sanitary-hygienic articles are sold only in pharmacies. There are no Internet or mail-order pharmacies in Bulgaria. The bargain trade with drug products shall be prohibited. The sale of medicinal products dispensed on medical prescription via internet shall be prohibited.
Are persons other than pharmacists involved in community practice?	Yes	Besides of pharmacists, assistant pharmacists are considered as professional staff at pharmacy. Article 220/3 of the Bulgarian Medicinal Products act states that “(3) An assistant pharmacist may carry out all operations under Article 219, Paragraph 1 in the presence and under the control of a master of pharmacy, with the exception of: dispensation of medicinal products under medical prescription, control and consultations.” http://old.bda.bg/bda_old/web_engl/main.htm Assistant Pharmacist’s Code 5.7.: <i>The students graduated from that speciality can work at the clinical pharmacy, at herbal stores, sanitary and drug stores, pharmacy stores, pharmacy laboratories, science institutes and pharmaceutical factories.</i> (http://old.mu-sofia.bg/index.php?p=166&l=1).
Their titles and number(s)		There is no official data and it varies. There is no limitation on the number, and some pharmacies work without assistant pharmacists. There is a register of the pharmacists (every regional pharmaceutical union has such a register), but not of the assistant pharmacists

Organisation providing and validating the E&T		There are five pharmaceutical colleges that provide education for assistant pharmacists in: <ol style="list-style-type: none"> 1. Sofia http://mu-sofia.bg/node/32, 2. Varna http://www.mu-varna.bg/muVarna/index.php?option=com_content&task=view&id=193&Itemid=122; 3. Plovdiv http://www.medcollege-plovdiv.org/ 4. Bourgas http://www.btu.bg/bg/homebg.htm 5. Pleven http://www.mu-pleven.bg/index.php?lang=en&Itemid=254
Duration of studies (years)	3	Studies of assistant pharmacists cannot be compared to bachelor studies at a university. There is no bachelor degree of pharmaceutical education in Bulgaria. There are unified requirements for achievement of higher education as assistant pharmacist (2008). The entrance is after participation in competition in biology, while the competition for studying pharmacy one has to compete in biology and chemistry. In some colleges the entrance is after interview.
Subject areas		Basic pharmaceutical sciences like pharmaceutical chemistry, pharmaceutical technology, drug legislation. <i>etc.</i> minimum 1200 hours
Competences and roles		Assist a pharmacist – no medicines dispensing function and dispensing OTC medicines under the supervision of a pharmacist.
Hospital pharmacy		
Does such a function exist?	Yes	The Bulgarian branch of the EAFP is the professional Organization of the hospital pharmacies (http://ohpb.org/)
Number of hospital pharmacists	114	Number of pharmacists registered with the Bulgarian Association of Hospital Pharmacists (http://ohpb.org/pobfb/registar)
Number of hospital pharmacies		There 324 hospitals in Bulgaria –most of them have a hospital pharmacy.
Competences and roles of hospital pharmacists		Preparation of and dispensing drugs on the hospital wards and also: Part of multidisciplinary patient-care team Purchasing of drugs and medical material Monitoring of drug use Production of patient-specific medicines Participation in clinical studies
Pharmaceutical and related industries		
Number of companies with production, R&D and distribution	22	EFPIA has 22 members in Bulgaria. (http://www.arpharm.org/en) The Bulgarian representative is the Association of the research-based pharmaceutical manufacturers in Bulgaria.
Number of companies producing generic drugs only	9	Examples: Actavis http://www.actavis.bg/bg/default.htm Sopharma (http://www.sopharma.bg/) and more than 50 smaller generic companies now have manufacturing capacity.
Industrial pharmacy		
Number of pharmacists working in industry	~1000	<10% students take the industrial pharmacy option in the HEI.
Competences and roles		Drug manufacturing, control, analysis, registration, etc.
Other sectors		
Sectors in which pharmacists are employed		<ul style="list-style-type: none"> • Academia Faculties of pharmacy • Wholesale • medical and pharmaceutical information • Bulgarian Drug Agency

		<ul style="list-style-type: none"> • Ministry of health • Representative offices of Bulgarian and foreign drug companies • Drug manufacturing in the Bulgarian drug companies.
Competences and roles in other sectors		Teaching, tutoring, drug accounting, communication, advertising, etc.
Roles of professional associations		
Registration of pharmacists	Yes	<p>The Bulgarian Pharmaceutical Union (http://bphu.eu/about_us.php?id_page=1) provides a certificate of entry onto the register of the corresponding Regional College of the Bulgarian Pharmaceutical Union to every master of pharmacy who is at the head of a pharmacy.</p> <p>In order to be registered as a professional pharmacist one has to submit to the Bulgarian Pharmaceutical Union:</p> <ol style="list-style-type: none"> 1. Diploma for higher pharmaceutical education 2. Diploma/s for specializations or PhD/DSc/Associate professor/Professor 3. Document from the working place that he/she is working as a pharmacist 4. A certificate showing no previous criminal conviction. <p>After approval the pharmacist becomes a member of the Bulgarian Pharmaceutical Union and gains his/her unique identification number as a pharmacist; this information is published in the Bulgarian government official gazette.</p>
Creation of pharmacies and control of territorial distribution	Yes	The Minister of Health issues an authorisation for retail trade in medicinal products in a pharmacy. The Bulgarian Pharmaceutical Union controls the implementation of requirements for the retail trade of medicines.
Ethical and other aspects of professional conduct	Yes	The Bulgarian Pharmacists Union has an ethical code for pharmacy practice. (pdf version in Bulgarian only)
QA and validation of HEI courses	Yes	The quality commission of the Bulgarian Pharmacists Union. http://bphu.eu/manage.php?id_page=10

Websites	
Bulgarian Drug Agency	www.bda.bg In English: http://www.bda.bg/index.php?lang=en
Bulgarian Pharmaceutical Union	http://bphu.org/

Chapter 2. Pharmacy HEIs, students and courses

	Y/N, number or %	If you wish to expand your answer, please add your comments below.
Total number of HEIs in your country	4	Pharmacy HEIs: 1. Medical University of Sofia : www.pharmfac.net 2. University of Plovdiv: http://meduniversity-plovdiv.bg/index.php?lang_id=2&prm=fac&subprm=farf 3. University of Varna: http://www.mu-varna.bg/ (accepting students in 2009) 4. Sofia University: http://www.uni-sofia.bg/index.php/eng/faculties/faculty_of_chemistry_and_pharmacy
Public	3	
Organisation of HEIs		
Attached to a medical faculty	Yes	The Faculties of Pharmacy in Sofia, Plovdiv and Varna are faculties of the corresponding Medical Universities. The Faculty of Chemistry and pharmacy is part of the Sofia University.
Do HEIs offer B and M degrees?	No	Only M degree
Bulgaria		
Teaching staff		
Staff (nationals)	250	varies for the different faculties
Professionals from outside the HEIs	20	They are from the pharmacies (supervision of student traineeships), pharmaceutical companies, wholesalers, etc.
Students		
Number of places on entry following secondary school	260+ per year	For 2012: (http://www.medfaculty.org/forum/index.php?action=printpage;topic=6177.0) Faculty of Pharmacy - Sofia: 120 Faculty of Pharmacy - Plovdiv: 60 Faculty of Pharmacy -Varna: 30 Sofia University – 50 students
Number of applicants for entry		Sofia: 3.4 Plovdiv: 1.8
Graduates that become registered pharmacists.	250 per year	The number of graduates during past five years was similar. The reason for the drop-outs was mainly not passing the semester exams. Drop-outs: 84 per year
Number of international students (from EU)	20 per year	Mainly from Greece and Cyprus. These are not ERASMUS exchange students but full time students.
Number of international students (non EU)	=/> 35 per year	Mainly from Macedonia, Turkey, Morocco, Tunisia and Serbia.
Entry requirements following secondary school		
Specific national entrance examination	Yes	National entrance examination in biology and chemistry
Other form of entry requirement at a national level	Yes	From other Universities outside EU if they fulfill the National requirements. No advance level entry possible.
Is there a national <i>numerus clausus</i> ?	No	

Fees per year		
For home students	375€	
For EU MS students	375€	
For non EU students	6000€	
Length of course		
	5 years	
Specialization		
Do HEIs provide specialized courses?	Yes	
In which years?	3, 4 and 5 th ; also post-graduate	
In which specialisation (industry, hospital...)?		Industry and clinical pharmacy after the 3 rd year .
What are the student numbers in each specialization?	15 and 12 for pre-graduate	<p>Following graduation there is a possibility to start postgraduate specialization (3 years' course) in one of 5 different areas:</p> <ol style="list-style-type: none"> 1. industrial pharmacy 2. social pharmacy 3. pharmacognosy 4. pharmaceutical analysis 5. pharmaceutical technology <p>The last wave of pharmacists to specialize was composed as follows - social pharmacy: 25, pharmacognosy: 1, pharmaceutical analysis: 1, pharmaceutical technology: 1, industrial pharmacy: 3.</p>
Past and present changes in E&T		
Have there been any major changes since 1999?	Yes	<p>The main changes were towards tuning with the EU requirements – more practical than theoretical subjects.</p> <p>Teaching of “new” subjects such as, pharmaceutical care, pharmaco-economics, bromatology/food science, history of pharmacy, <i>etc.</i></p> <p>Changes were made in the state exam in order to tune the final examinations with those of EU HEIs.</p>
Are any major changes envisaged before 2019?	Yes	<p>Changes in the relative number of hours of some subject areas.</p> <p>Chemical subjects will decrease while the special subjects like Pharmaceutical technology will increase the number of hours.</p>
Sofia		
Teaching staff		
Staff (nationals)	100	100 full-time, no part-time.
Professionals from outside the HEIs)	3-4	Working pharmacists who supervise traineeships.
Student		
Places on entry following secondary school	144	
Number of applicants for entry	NA	
Number of graduates that become registered pharmacists.	100	
Number of international students (EU member states)	16	Greece, Cyprus. These are not ERASMUS exchange students but full-time students.

Number of international students (non EU)	20	Macedonia, Turkey, Morocco, Tunisia, Serbia.
Entry requirements (beginning of S1 of B1, following secondary school)		
Specific entrance examination	Yes	Same as national examination
Advanced entry : No (fully integrated, seamless course)		
Fees per year		
For home students	375€	
For EU MS students	375€	
For non EU students	6000€	
Length of course	5 years	
Specialization		
Do HEIs provide specialized courses?	Yes	
In which years?	3, 4 and 5; also post-graduate	
In which specialisation (industry, hospital...)?		Industry and clinical pharmacy
What are the student numbers in each specialization?	15 and 12 for pre-graduate	<p>Following graduation there is a possibility to start postgraduate specialization (3 years' course) in one of 5 different areas: industrial pharmacy, social pharmacy, pharmacognosy, pharmaceutical analysis, and pharmaceutical technology). This postgraduate diploma proffers no professional advantage and is relatively costly. The last wave pharmacists to specialize was split up as follows</p> <ul style="list-style-type: none"> • social pharmacy: 25 • pharmacognosy: 1 • pharmaceutical analysis: 1 • pharmaceutical technology: 1 • industrial pharmacy: 1.
Past and present changes in E&T		
Have there been any major changes since 1999?	Yes	<p>The main changes were towards harmonization with the EU requirements – more practical than theoretical subjects. Teaching of “new” subjects such as, pharmaceutical care, pharmaco-economics, bromatology, history of pharmacy, etc.</p> <p>Changes were made in the state exam in order to tune the final exams with the EU.</p>
Are any major changes envisaged before 2019?	Yes	Changes in the relative number of hours of some subject areas.
Is your HEI typical of all HEIs in the country?	Yes	

Websites	
Faculty of Pharmacy, University of Sofia	http://pharmfac.net/ (in Bulgarian) http://www.pharmfac.net/index_en.html (in English)

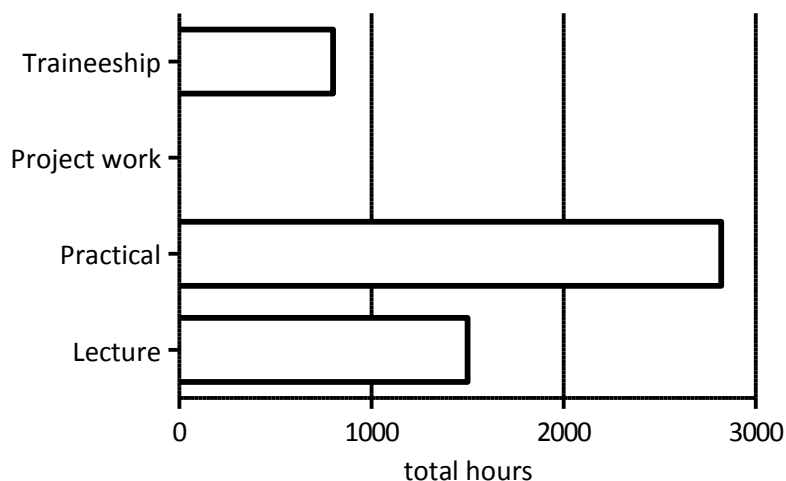
Chapter 3. Teaching and learning methods

Student hours

Method	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Lecture	210	315	330	435	210	1500
Practical	540	525	585	825	345	2820
Traineeship						
Hospital or community*					800	800
Electives			60/90	120/120		
Total	750	840	915	1260	1355	5120

*: validation of traineeship: the pharmacist responsible for the trainee fills in a monthly report and a final report at the end of the 6 months and these are validated (or not) by the HEI.

Student hours by teaching method.



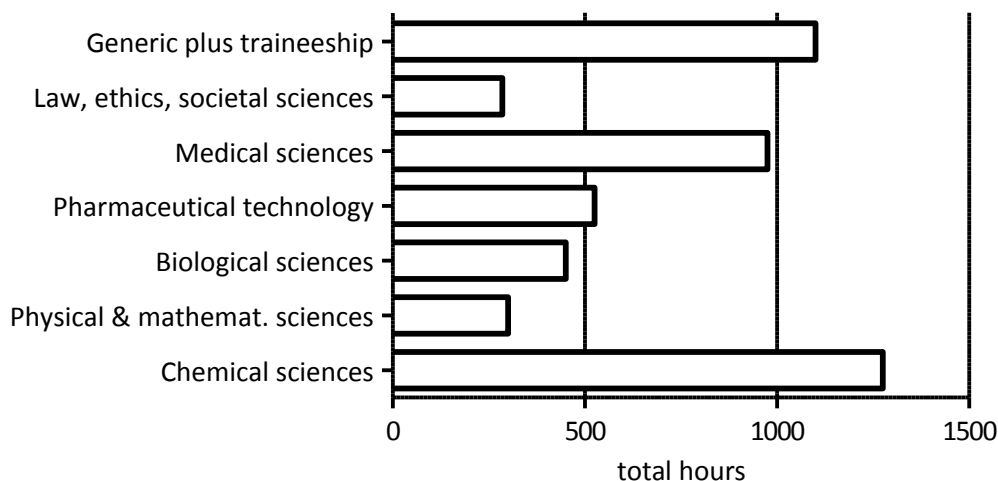
Websites	
Faculty of Pharmacy, University of Sofia	http://pharmfac.net/ (in Bulgarian)
	http://www.pharmfac.net/index_en.html (in English)
Details of courses	http://www.pharmfac.net/course.htm

Chapter 4. Subject areas

Student hours						
Subject area	Year 1	Year 2	Year 3	Year 4	Year 5	Total
CHEMSCI	165	510	225	225	150	1275
PHYSMATH	300					300
BIOLSCI	60	165	75	150		450
PHARMTECH			210	315		525
MEDISCI	45	120		690	120	975
LAWSOC	30		90	45	120	285
GENERIC	300					300
GENERIC + TRAINEESHIP	300				800	800
Total	900	795	600	1425	1190	4910

Numbers calculated according to the Uniform State Requirements of Bulgaria.

Student hours by subject area.



Faculty of Pharmacy, University of Sofia	http://pharmfac.net/ (in Bulgarian) http://www.pharmfac.net/index_en.html (in English)
Details of courses	http://www.pharmfac.net/course.htm

Chapter 5. Impact of the Bologna principles

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	Yes	The comparability of degrees is achieved through calculation of the hours and comparison with other EU countries. The Diploma Supplement provided in English. With the texts of the Law on Higher Education adopted by the Bulgarian Parliament on June 4, 2004 both the system for collection and transfer of credits and the Diploma Supplement were legally introduced.
2. Two main cycles (B and M) <u>with entry and exit at B level</u>	No	
3. ECTS system of credits / links to LLL	Yes	The ECTS system of credits is applied during the 5 years period of learning and after graduation in the different courses to LLL.
4. Obstacles to mobility	Partially	As the English language is extensively used there are language barriers for the proper usage of mobility. Financial problems do exist.
5. European QA	Partially	Regulated at a national level by the Ministry of education, but tuned to EU requirements
6. European dimension	Partially	
ERASMUS staff exchange to your HEI from elsewhere		Number of staff months: 0
ERASMUS staff exchange from your HEI to other HEIs		Number of staff months: 1
ERASMUS student exchange to your HEI from elsewhere		Number of student months: 0
ERASMUS student exchange from your HEI to other HEIs		Number of student months: 72

The faculty of pharmacy in Sofia has ERASMUS exchange programmes with:

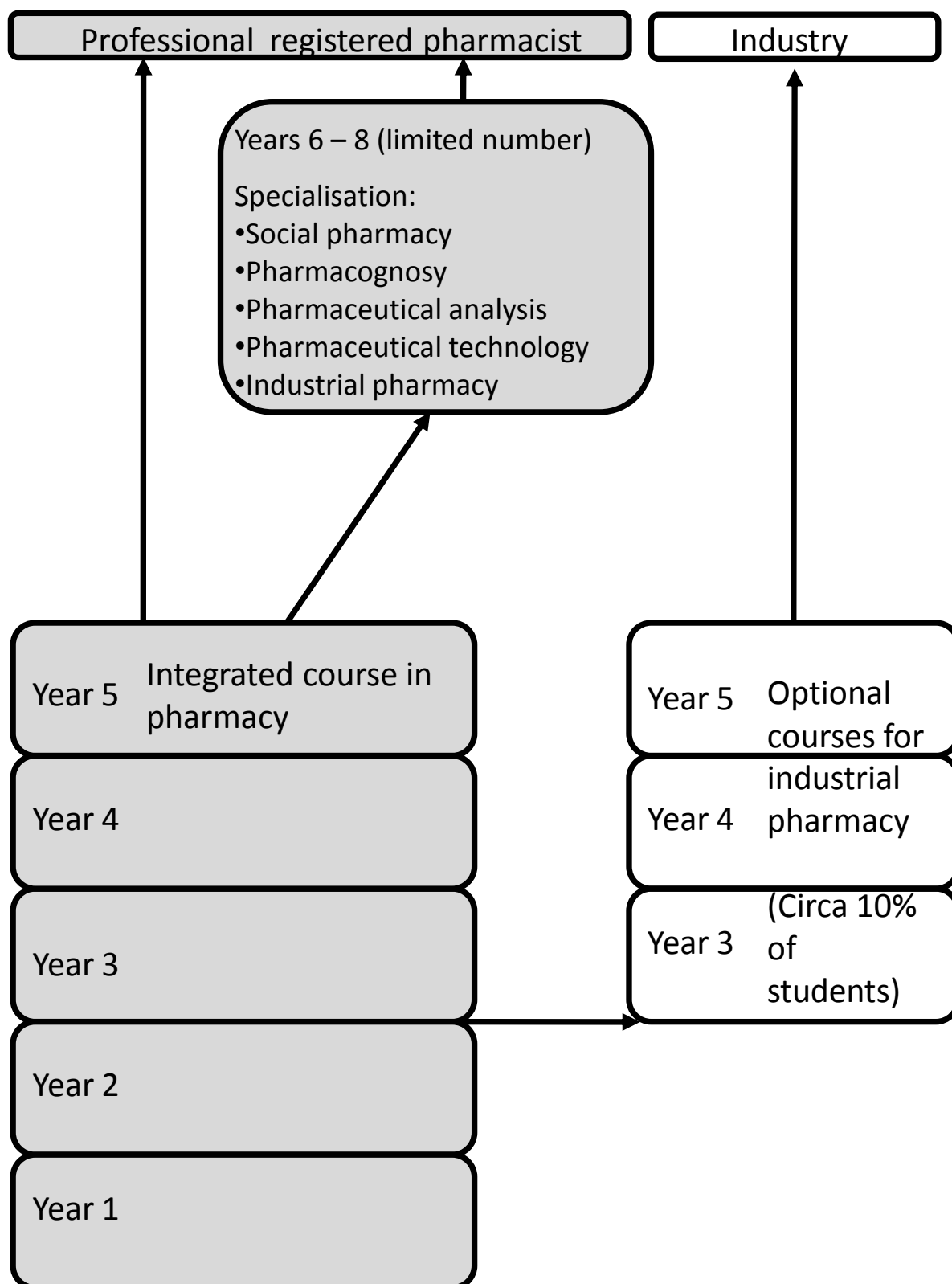
- Belgium, University of Antwerp and Vrije universiteit Brussels
- France, University Henri Poincare, Nancy and Université de Limoges
- Germany, Ruprecht-Karls-Universität Heidelberg , Anhalt University of applied sciences Kothen and Freie universität Berlin
- Czech republic - University of veterinary and pharmaceutical sciences, Brno
- Italy - Università degli studi di Siena and Sapienza university of Rome
- Spain - University of Navarra and Universitat autonoma de Barcelona

There is also an exchange programme with Turkey- Mersin University.

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> ,...”	The training of pharmacists MSc in Bulgaria is of 5 years duration. The curriculum covers the EU requirements
“... <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;”	Bulgaria complies
“... <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.”	Bulgaria complies
“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> ”	Bulgaria complies
Directive annex	How does / will this directive annex affect pharmacy E&T?
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 courses are covered in the curriculum The following subjects could be added: <ul style="list-style-type: none"> • Ethics, deontology • Communication • marketing and management

**The Bulgarian pharmacy education and training scheme
(based on the model of Sofia, Bulgaria).**



Pharmacy education and training leading to professional pharmacy practice is shown on the left in grey.



Education and Culture DG

Lifelong Learning Programme

PHARMINE
*Pharmacy Education
in Europe*

PCN

*Pharmacolor
Consultants
Nancy*



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