Pharmacy education & training in

LITHUANIA

Version 2 - 2012

Education and Culture DG
Lifelong Learning Programme

PHARMINE
Pharmacy Education
in Europe

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 of 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://enzu.pharmine.org/media/filebook/files/PHARMINE%20WP7%20survey%20of%20European%20HEIs%200309.pdf)

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This revised version was produced by Prof. Briedis and Atkinson, Fall, 2012

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The Lithuanian University of Health Sciences (LSMU) is the largest institution providing university degrees, training and research in biomedical sciences in Lithuania. Its study programmes meet the directives set by the European Union and it collaborates with European, American and Asian universities and international organisations in research and academic activities. LSMU has 7 faculties: the Faculty of Medicine, Faculty of Odontology, Faculty of Pharmacy, Faculty of Nursing, Faculty of Public Health, Faculty of Veterinary Medicine and Faculty of Animal Husbandry Technology.

LSMU offers five programmes to international students, four of them being integrated studies that lead to a master's degree in medicine, veterinary medicine, odontology or pharmacy. The fifth programme is a postgraduate degree in public health. The mission of LSMU is the education and training of health professionals in international standards, modern research in health promotion, disease prevention, diagnosis and treatment, and the provision of the highest quality of specialized health care to the patients.

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Summary.

Community pharmacies in Lithuania provide mainly traditional services (sale and counselling of Rx and OTC medicines, counselling of self-medication). Pharmacists can own and manage community pharmacies, work as responsible pharmacists in both community and hospital pharmacy. In Lithuania ownership of community pharmacies is not restricted to the pharmacy profession and the majority of pharmacies have joined different pharmacy chains.

Assistant pharmacists study at the Kaunas University of Applied Sciences and after graduation are mainly employed in community pharmacies. Assistant pharmacists cannot be pharmacy managers.

There is only one HEI providing higher education in pharmacy in Lithuania – the Lithuanian University of Health Sciences. At the Lithuanian University of Health Sciences the pharmacy curriculum is organized as an integrated course with no possibility of graduation with a bachelor degree after three years of studies. Currently traineeship is provided during the 6 months' practice at community and hospital pharmacies during the fifth year of studies. Post-graduate training for pharmacists is offered by the faculty for postgraduate training at the Lithuanian University of Health Sciences. The post graduate training programs include both clinical pharmacy, social aspects of pharmacy, and pharmacology subjects – the proportions depend on the specific chosen course as few are available.

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Introduction.

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

Statistics (2006 unless indicated)
Total population: 3,408,000
Gross national income per capita (PPP international $): 14,550
Life expectancy at birth m/f (years): 65/77
Healthy life expectancy at birth m/f (years, 2003): 59/68
Probability of dying under five (per 1 000 live births): 9
Probability of dying between 15 and 60 years m/f (per 1 000 population): 333/113
Total expenditure on health per capita (Intl $, 2006): 1,041
Total expenditure on health as % of GDP (2006): 6.2
See also: World Health Statistics 2008

Highlights on health in Lithuania

The health system of the Republic of Lithuania is regulated by the following legal acts: the Law on Health System of 19 July 1994, the Law on Health Insurance of 21 May 1996, and the Law on Pharmacy of 22 June 2006. The principles of the Lithuanian health care system, its relevant institutions and their responsibilities are set out in the Law on the Health System.

The Law on Health Insurance establishes the types of health insurance in Lithuania, and the compulsory health insurance system: people covered by compulsory health insurance; principles of the Compulsory Health Insurance Fund formation; and compensation of individual health care service costs with Compulsory Health Insurance Fund resources, etc. It is a state-established system of individual health care and economic measures which guarantees the pro-vision of individual health care services to people covered by compulsory health insurance, and reimbursement of the costs of the services provided, including pharmaceuticals and medical aids in the case of insured events.

Health expenditure (HE) is financed primarily through health insurance contributions but also through VHI and out-of pocket payments (OPP). The budget for the Compulsory Health Insurance Fund is drawn up each calendar year by the State Patient Fund (SPF). Compulsory health insurance revenue consists of: (1) compulsory health insurance contributions from and for the covered persons; (2) national budget contributions for the covered persons insured with public funds; (3) earnings of the institutions providing compulsory health insurance; (4) additional allocations from the national budget; (5) voluntary contributions from natural and legal persons, etc.

There are two main types of outpatient clinic in Lithuania: independent GPs and integrated practices (where GPs and first-level specialists are working together). The number of integrated clinics has progressively reduced. All

people have access to primary pharmaceutical care by GPs. GPs decide on any further consultations with specialists. Care for some patient groups (oncology, haematological) can be carried out by specialists. The patient is free to choose the family doctor and s/he is always free to change doctor. The family doctor (GP) refers the patient to the specialist.

Inpatient care institutions are mostly organised as public institutions. There are only few private inpatient care institutions; public non-profit-making health care institutions dominate. There are three different levels of inpatient care services. The highest (third) level of health care services is provided in the biggest hospitals (university and some municipal hospitals). Second-level in-patient care services are provided in major cities offering specialist care in different medical departments. First-level inpatient care services – the simplest services – can be given in all inpatient health care institutions. Hospitals are spread throughout the country. They have no specialisation, excluding specific hospitals, e.g. tuberculosis treatment hospitals. All inpatient ser-vices covered by compulsory health insurance are fully reimbursed. Out-of-pocket payments are only paid for ser-vices which are not covered by compulsory health insurance, e.g. cosmetic surgery. Doctors are employees of inpatient health care institutions and are paid by hospitals.

Source: http://ppri.oebig.at/Downloads/Results/Lithuania_PPRI_2008.pdf

Pharmacists participate in the efficient functioning system of safe and efficient use of pharmaceuticals and in delivering specific medicinal and pharmaceutical information and services to society. The training of pharmacists ensures their adequate competencies to create necessary prerequisites for adequate use of pharmaceuticals at healthcare institutions and by patients themselves. The volume of studies in clinical pharmacy, pharmacotherapy, communication skills and social pharmacy is increasing during last few years. Similar topic are included in post-graduate training programs.

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

	Y/N, number or %	Comments.
Community pharmacy		
Number of community pharmacists	2947	1200 inhabitants per pharmacist
Number of community pharmacies	1320 - main and branch	2.2 pharmacists per pharmacy 2600 inhabitants per pharmacy
Competences and roles of community pharmacists		1. Supplying prescription medicines 2. Managing medicines for some ailments 3. Giving advice on medicines 4. Diagnostic services – sometimes pharmacies offer services of blood pressure measurement 5. Health campaigns (smoking cessation…) – sometimes (healthy nutrition, antismoking etc) 6. Substitution by generic drugs – regulated issue: the patient must receive information on available generics and the lowest price product in the group (monitors at the counters in the pharmacies)
Is ownership of a community pharmacy limited to pharmacists?	No	http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=364795) - Law on pharmacy.
Rules governing the distribution of pharmacies?	No	
Drugs and healthcare products available to the general public by channels other than pharmacies?	No	Food supplements are available via internet.
Are persons other than pharmacists involved in community practice?	Yes	
Their titles and number(s)	1890	Assistant pharmacists
Their qualifications		
Organisation providing and validating the E&T		Colleges (non-university) Health care faculty: http://www.kauko.lt/kolegija.php?id=170; Department of pharmacotechnics of Kaunus College :http://www.kauko.lt/kolegija.php?id=124.
Duration of studies (years)	3	Entrance requirements are based on school leaving certificate results. The national computerized system is used for rating of graduates.
Subject areas		Chemistry, biology, biochemistry, anatomy, physiology, pathology and disease science, microbiology, pharmacology, botany, emergency medicine, social sciences (basic law, economics and management, organization of business in pharmacy), pharmaceutical technology, pharmaceutical chemistry, pharmaceutical care, phytotherapy, pharmacotherapy, clinical pharmacy, pharmacognosy, and pharmacy practice.

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		The studies are more practically oriented in comparison to pharmacy studies at the university.
Competences and roles		Pharmaceutical compounding, delivery of medicinal goods (pharmaceuticals – under control of pharmacist), delivery of information on use of pharmaceuticals, use of IT in pharmaceutical practice.
Hospital pharmacy See: http://www.eahp.eu/content/search?SearchText=lithuania&SearchButton=Search		
Does such a function exist?	Yes	No legal status of hospital pharmacist exists.
Number of hospital pharmacists	Number not applicable	There are specialized hospital pharmacies in hospitals but these are not staffed by specialized hospital pharmacists.
Number of hospital pharmacies	54	Of the 54, 28 prepare medicines.
Competences and roles of hospital pharmacists		Competences not defined formally. Each establishment defines according their own needs. Preparation of and dispensing drugs on the hospital wards Part of multidisciplinary patient-care team – in some cases Purchasing of drugs and medical material Monitoring of drug use – in some cases Production of patient-specific medicines– in some cases Participation in clinical studies – in some cases
Pharmaceutical and related industries		
Companies with production, R&D and distribution	3	UAB Sicor Biotech: http://www.sicor.lt/ UAB Aconitum: http://www.aconitum.lt/ UAB Valentis: www.valentis.lt/
Companies with production only	2	UAB Norfachema: http://www.pharmedus.com/norfachema
Companies with distribution only	> 10	UAB Armila: http://www.armila.com/ UAB Limedika: http://www.limedika.lt/ UAB Tamro: http://www.tamro.lt/
Companies producing generic drugs only	5	AB Sanitas: http://www.sanitas.lt/lt/main/index
Roles of industrial pharmacists		Manufacturing, R&D, QC & QA, regulatory affairs, business development, control, analysis, registration, etc. Industrial pharmacists are not officially recognized as qualified persons.
Industrial pharmacy		
Number of pharmacists working in industry	85	The figure is approximate based on information available from main/biggest pharmaceutical manufacturers. Only those, who are licensed for carrying out pharmaceutical activities, are included in official registry.
Other sectors		
Number of pharmacists working in other sectors	120	The figure is approximate based on information available from state institutions and biggest manufacturing companies in related branches (e.g., cosmetics), representation offices of multinational pharmaceutical companies, CROs, etc.
Sectors in which pharmacists are employed		Regulatory and official institutions, representation offices of multinational pharmaceutical companies, service providing companies (CRO)

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Competences and roles of pharmacists employed in other sectors		Defined by specific activities
Roles of professional associations		
Registration of pharmacists	No	The Lithuanian pharmacist association is the professional organisation for pharmacists
Creation of community pharmacies and control of territorial distribution	No	
Ethical and other aspects of professional conduct	Yes	A Code of Ethics has been developed by the Lithuanian pharmacist association.
Quality assurance and validation of HEI courses for pharmacists	No	
Other (please specifiy)		Business projects and activities - develop applications for getting funding for post-graduate training

References	
Agencies, texts and articles of national law	Pharmacy law (2006-06-22, X-709) Regulation of pharmacy studies (2008) MoH: http://www.sam.lt/go.php/eng/MINISTRY_OF_HEALTH_OF_THE_REPUBLIC_OF_LI
References (EU, international)	Valid EU directives such as directive 2005/36/EC.

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Chapter 2. Pharmacy HEIs, students and courses

	Y/N, number or %	Comments.
Total number of HEIs in Lithuania	1+1 (public)	University type HEI Lithuanian university of health sciences: http://naujas.kmu.lt/index.php In English: http://naujas.kmu.lt/index.php?set_lang=en This is where the registered pharmacists are trained. College (also considered as an HEI by Lithuanian law) training professional bachelors : Kaunas College: http://www.kauko.lt/college.php?id=1 Kauno Kolegija/ Kaunas University of Applied Sciences is a state - owned institution providing higher education in the areas of technologies, social sciences, biomedicine, pharmacy, humanities and arts. This is where the assistant pharmacists are trained.
Organisation of HEIs		
Attached to a medical or science faculty	No	The pharmacy department is one of the 5 departments of the Lithuanian university of health sciences, the other 4 being: medicine, dentistry, nursing and public health.
Are there B + M degrees in pharmacy?	No	Only a 5 year seamless M degree
Kaunas – Lithuania		
Teaching staff		
Number of teaching staff (nationals)	185	Part of the staff belongs to other faculties of KUM: medical faculty, public health.
Number of international teaching staff	4	Visiting, no constant number
Number professionals (pharmacists and others) from outside the HEIs)	2 (from industry etc.)	Number of persons, taking care of trainees in the pharmacies is not a constant figure for each year
Students		
Places on entry following school	96	2008 statistics http://trc.kmu.lt/index.php
Number of applicants for entry	232	2009 statistics http://www.lamabpo.lt/foreign.html
Number of graduates that become registered pharmacists.	101	2009 statistics, drop out is up to 3%
Number of international students (from EU member states)	2	For 2009-2010 – Germany
Number of international students (non EU)	23	Lebanon, Israel
Entry requirements following secondary school		
Specific pharmacy-related, national entrance examination	No	General graduation exams
Other form of entry requirement at a	Yes	Graduation exams in National language, Biology, Chemistry and/or Mathematics

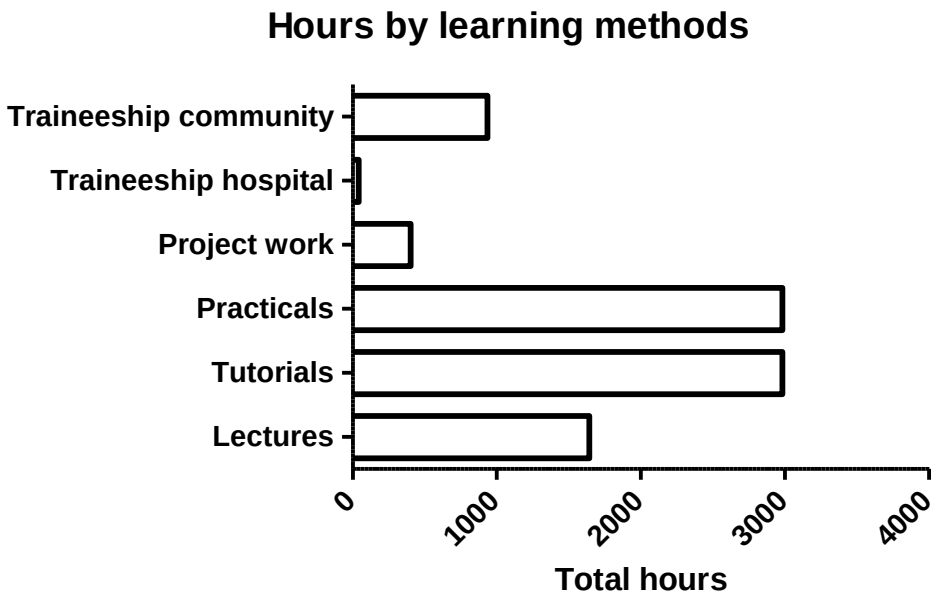
national level		
Is there a national *numerus clausus*?	Yes	Limitation based on state-financed studies and university decision to accept to paid studies
Advanced entry Anyone from other university program can enter through normal/classical entrance procedure into the 1st year of studies, but them he/she can advance to the higher course due to the fact that he/she has completed similar volume studies of specific subjects (analytical chemistry, biology, etc.) in recognized university, and in fact in 2010 4 students advanced to the higher courses as they have studied in veterinary, chemistry, biology programs in other universities.		
At which level?	[redacted]	Any if studies at other university type institution confirmed
What are the requirements?		Successful studies
Specific requirements for international students (EU or non EU).		A level or 12 year secondary education, entrance exam, SAT test
Fees per year		
For home students	3000€	
For EU MS students	5200€	
For non EU students	5200€	
Length of course	**5 years**	
Specialization		
Does the HEI provide specialized courses?	No	Special courses are provided to graduated pharmacists by Faculty of post-graduate training. The post graduate training programs include both clinical pharmacy, social aspects of pharmacy, and pharmacology subjects – the proportions depend on the specific chosen course as few are available.
Past and present changes in E&T		
Have there been any major changes since 1999?	Yes	Implementation of pharmacy studies regulation. The document sets objectives and learning outcomes of the pharmacy studies at HEI
Are any major changes envisaged before 2019?	Yes	Specialization: clinical pharmacy, industrial pharmacy, etc.

Chapter 3. Teaching and learning methods

The pharmacy program is in the process of transition to ECTS, and the volumes will not necessary correspond to the student hours of the courses, those will be used for accounting purposes mainly

Student hours

Method	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Lecture	360	360	360	280	280	**1640**
Tutorial	620	620	620	560	560	**2980**
Practical	620	620	**620**	560	560	**2980**
Project work	n/a	n/a	**n/a**	200	200	**400**
Traineeship					**975**	**975**
Hospital	n/a	n/a	n/a	n/a	40	**40**
Community	n/a	n/a	n/a	n/a	935	**935**
Electives						
Choice	Not less than 15%	Not less than 15%	Not less than 15%	Not less than 15%	Not less than 15%	
Optional	Not less than 5%	Not less than 5%	Not less than 5%	Not less than 5%	Not less than 5%	
Total	*1600*	*1600*	*1600*	*1600*	*1600*	***8000***



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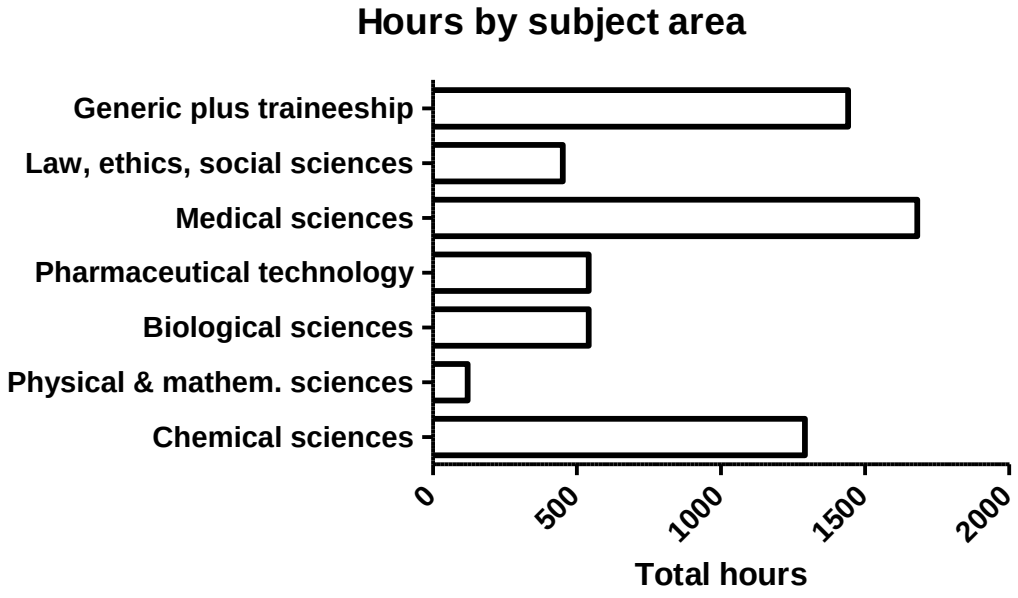
Chapter 4. Subject areas

Student hours

Subject area	Year 1	Year 2	Year 3	Year 4	Year 5	Total
CHEMSCI	390	480	210	210	0	**1290**
PHYSMATH	120	0	0	0	0	**120**
BIOLSCI	300	120	0	0	120	**540**
PHARMTECH	0	120	210	210	0	**540**
MEDISCI	60	300	450	690	180	**1680**
LAWSOC	120	0	210	0	120	**450**
GENERIC	210	180	120	90	840	**1440**



The calculations are based of valid training hours for current academic year, and relatively large total of hours are due to method of calculation of academic load in this case. That was already changed for the next year pharmacy program of university level.

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	Diploma Supplement is provided in English.
2. Two main cycles (B and M) with entry and exit at B level	No	
3. ECTS system of credits / links to LLL	Yes	ECTS is to be implemented till 2011-2012 Participation in CPD/LLL system is necessary for prolongation of Pharmacy license.
4. Obstacles to mobility	No	Differences in study program. Mobility mainly due to ERASMUS program. Language does not create any problems, as many students study foreign languages at secondary school, university and individually. Mobility is financed mainly through the ERASMUS program, and in special cases through university funds for short term visits, or from research projects.
5. European QA	Yes	Evaluated by international experts. We are currently preparing self-evaluation report, that will be submitted till 2010-10-30.
6. European dimension	Yes	Common preparation of master thesis projects.

ERASMUS staff exchange to your HEI from elsewhere	Number of staff months: 2
ERASMUS staff exchange from your HEI to other HEIs	Number of staff months: 3
ERASMUS student exchange to your HEI from elsewhere	Number of student months: 6
ERASMUS student exchange from your HEI to other HEIs	Number of student months: 48

Erasmus exchange exists with Poland, Czech Republic, Finland, Germany, Netherlands, France, Italy, Spain, and Portugal.

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

The directive states	How does / will this directive statement affect pharmacy E&T?	If you wish to expand your answer, please add your comments below. Do you consider the directive statement valid? If not how would you change it?
"Evidence of formal qualifications as a pharmacist shall attest to training of at least five years' duration,…"	Five years training	
"…four years of full-time theoretical and practical training at a university or at a higher institute of a level recognised as equivalent, or under the supervision of a university;"	4.5 years training	
"…six-month traineeship in a pharmacy which is open to the public or in a hospital, under the supervision of that hospital's pharmaceutical department."	6 month practical traineeship in a public or hospital pharmacy. Students fill in a traineeship diary (internet version available), visits on site, training at the university pharmacy, report presentation after 6 month traineeship.	Traineeship in industry should be considered.
"The balance between theoretical and practical training shall, in respect of each subject, give sufficient importance to theory to maintain the university character of the training."	Practice includes training in Pharmaceutical Analysis, Social Pharmacy, Pharmaceutical Technology, thus ensuring balance between theory and practice	Minimal competences and skills to be achieved should be set.
Directive annex	**How does / will this directive annex affect pharmacy E&T?**	**If you wish to expand your answer, please add your comments below. Do you consider the directive annex valid? If not how would you change it?**
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.**	The topics are present in pharmacy program	Products originating from advanced technologies

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

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