## **Qualification awarded**

Ptychio Farmakeftikis (Degree in Pharmacy)

# Level of qualification

Undergraduate

## Specific admission requirements

Upper secondary degree (six years of studies)- national level examination

Qualification requirements and regulations, profile of the programme and Key learning outcomes The students complete their studies and obtain the degree in Pharmacy when having succeeded in the anticipated courses (compulsory and elective) and accumulated 300 ECTS. The courses are allocated to eight semesters and the practical training is pursued for 2 semesters (30 ECTS per semester, 4x3 quarters) (9th to 10th) and includes: a)a pharmacy opened to the public (min: 6 months) b)a hospital pharmacy (min: 3 months) c)a pharmaceutical industry (elective) ).

The students can select and apply for a Diploma work (equivalent to two elective courses) at the 8th semester. Application for a Diploma work will be submitted till the end of the 7th semester to the administration office of the School of Pharmacy.

The examination is written/oral or in an assignment form.

The undergraduate study program (USP) provided by the School of Pharmacy aims at training pharmacists to understand the chemical structure and the pharmacological activity of the drugs, their bioavailability, biodegradation, metabolism, the used methods for drugs synthesis as well as the used methods for their evaluation (synthesis and drug formulation).

At the applied level, USP also aims in training and providing the graduates with the necessary skills related to the sector of drug and health. Specifically, upon successful competition of their studies graduates of the School of Pharmacy based on their courses, diploma and practical training can acquire training and skills closely related to:

a) The chemical and pharmacochemical study of substances of pharmaceutical and of broader biological interest, the chemical and pharmacochemical study of chemical compounds (organic, inorganic, metallo-organic) of broader pharmaceutical-biological interest, Design, synthesis (isolation), separation, properties, control (identification, purity, content), the chemical and pharmacochemical study (biological response, biodegradation, bioavailability, metabolism, interaction) of the biologically active agents, the structure-activity relationship between molecular structure/action of biologically active agents, the quantitative structure-properties-activities relationships of all the above, the study of chemical principles and methods that support the development of pharmacochemistry and the chemical aspect of immunology.

b) the pharmaceutical practices and legislation (prescription execution and pharmacotechnical tasks at the Pharmacy and the Hospital), the consideration of pharmaceutical agents and preparations and of their application and action systems (physical and physiochemical laws) from a physiopharmaceutical point of view, the basic pharmacotechnical elaborations at semi-industrial and industrial scale of the raw material and pharmaceutical agents, as well as their design, technology and formatting into preparations and cosmetics, the assessment of the quality of medicines, cosmetics and generally of natural products, of preparations and substances by applying control methods (physiochemical, technological, microbiological, in vivo, etc.), the pharmaceutical technology of the preparations and the factors affecting their efficiency during their in vivo implementationand the technological study of factors affecting the obtaining, treatment and control of natural products and of their components.

c) the chemistry of natural products (of vegetative, animal, mineral origin), that is, isolation of active components, identification, control and chemical study,the pharmaceutical study of medicines and aromatic plants (essential oils, alkaloids, etc.: analysis, standards and improvement methods), description of medicines, classification, microscopic control, isolation, identification, control and biogenesis of their natural products , the Biotechnology of Pharmaceutical Plants and the implementation of physiochemical methods used in Pharmacognosy.

d) the pharmacological development of new medicines, the improvement of known pharmaceutical agents and the study of the structure and pharmacological action at biochemical, molecular level (in vitro), as well as in situ (isolated organs) and in vivo (laboratory animals), the pharmacodynamic study of the pharmacological actions, undesirable effects, and interactions between medicines, the analysis of the action of chemotherapeutic agents for microbial infections, parasitic diseases, viruses and neoplasms, the pharmacological analysis and clinical testing of medicines (absorption, distribution, elimination mechanisms of medicines), dosage determination, therapeutic protocols, medicine interactions, the pharmacogenetic study of the idiosyncrasy, metabolism, addiction, psychic and natural dependence and resistance to medicines, the immunopharmacological analysis of allergenic factors, pharmaceutical agents, mechanisms of immunosuppression by medicines and the pharmacological basis of hyperaesthesia phenomena, the toxicological study of medicine undesirable effects mechanisms, of natural products, poisons, teratogens and mutagens in vitro or in vivo, the study of the pharmacological action of micro-molecular factors (vaccines, sera, proteins, hormones, etc.) and of microorganismsetabolism products, which are prepared with biotechnology methods and the development of therapeutic reagents for neurodegenerative diseases.

Graduates of the School of Pharmacy, further to the basic knowledge of their discipline and profession are able to: 1) apply knowledge in practice, 2) communicate in a foreign language, 3) search, process, analyse and synthesize data and

information, use also the necessary technologies, 4) adapt to novel situations and make decisions, 5) work independently or in groups in international and/or interdisciplinary contexts, 6)generate new research ideas and designe and manage projects, 7) respect diversity, multiculturalism and the natural environment, 8) demonstrate social, professional and moral responsibility and sensitivity to gender issues, 9) view themselves as well as others critically, 10) promote free, inductive and deductive thinking.

## Occupational profiles of graduates with examples

Professional licence is required to establish and manage pharmacy retail bussiness, to serve as a pharmacist in a state hospital or to serve in a state health service.

### Access to further studies

The qualification is a terminal award and allows access to postgraduate studies **Examination regulations, assessment and grading** 

A scale of 1 to 10 applies to the marks of each subject in the Hellenic higher education. API $\Sigma$ TA (Arista) Excellent : 8.50-10.00 AIAN KAA $\Omega\Sigma$  (Lian Kalos) Very Good : 6.50-8.49 KAA $\Omega\Sigma$  (Kalos) Good : 5.00-6.49

## **Graduation requirements**

### 10 SEMESTERS, 300 ECTS.

A full academic year is equivalent to 60 ECTS units and each semester to 30 ECTS (European Credits Transfer System) (1 ECTS= 25-30 hours) (according to the Greek Law 1466/13-8-2007, No 5/89656/B3, art. 1,2,3). To each course is given a number of ECTS (>=2) according to the studentwork load (contact hours, laboratory work, examination etc) for the full completion of the course.

### Mode of study

#### 10 SEMESTERS, 300 ECTS.

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### **Programme director or equivalent**