

Educational Institution: TALLINN HEALTH COLLEGE
Code of educational institution: 70003980
Title of study programme: ASSISTANT PHARMACIST

Level of study programme: Professional Higher Education

Status of study programme: Study programme of the School

Accreditation data: -

Volume in credit points/study weeks: 120CP/140 SW

Nominal length of studies: 3 years

Matriculation requirements:

Document certifying secondary education, state examinations: desirably biology, chemistry, Estonian language, Estonian language state exam for non- Estonians, aptitude interview.

The aim of the study programme and options for specialization:

To educate pharmacists with professional higher education needed in pharmacies and other institutions dealing with medicaments.

Graduates will be awarded a diploma of pharmacist.

Academic education – Tartu University, Faculty of Medicine, Department of Pharmacy.

A short description of the study programme and regulation of studies:

The study programme is divided into three courses: I, II and III courses - 40 CP.

Theoretical studies in total comprise 95 CP, a part of the practical training is practicing in school laboratories. Total amount of the practical training is 30%, 25 CP of which in practice environment. The practical training at school as a part of basic or supportive subjects comprises 440 hours or 11 CP.

The final examination corresponds to 4 CP.

5 percent of the study programme is optional subjects. Options are fixed in the study programme.

Requirements for graduation:

Prerequisite for graduation are the completion of all the subjects set out by the study programme in full extent with grades A- E and successful passage of the final examination.

Documents verifying graduation:

A professional Higher Education Diploma and an Academic statement (diploma supplement) belonging to it.

Code of the study programme by the Classification of Estonian Curricula in the Register:

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EXPLANATORY LETTER

supporting subjects. The study programme for the speciality of pharmacist has been verified in the Ministry of Education by the minister – Decree No.975, code 5506205, 05.09.2003.

This academic year we have made the following changes in the study programme:

- according to the standard of higher education the volume of the auditory work is 50% and the rest of the subjects are divided between a practical training and an independent work;
- the subjects are coded;
- the volume of the practical training is corresponding with the standards of higher education. A part of the practical training the practice in school laboratories. The volume of practical training is 30%, 25 CP of which account for the practical training in the work environment and 440 hours or 11 CP for the practice at school as a component of the basic and
- the volume of the final examination is 4 CP.

THE AIM OF THE STUDY PROGRAMME

The aim of the study programme is to educate pharmacists with professional higher education needed in health care institutions. The speciality of pharmacist gives the right to work in pharmacies, legal drug wholesale companies and other spheres of business connected with distribution, delivery and usage of legal drugs, medical goods and health products. The aim of pharmacists' activities is the cure and prevention of diseases, recreation, maintenance and promotion of health. The main assignment of pharmacists is the delivery and distribution of legal drugs and medical items to the population, preparation of drugs according to the scientifically justified technological regulations, pharmaceutical counselling of the clients. The program is based on the Higher Vocational School Law (10. 03. 2003), Applied Higher Educational School Law (10.06.19989), Standard of Higher Education (regulation No. 258 of the government, 13.08.2002), the quality requirements for the tuition of pharmacists (the professional standard of pharmacist is under development at the moment) proceeding from the recommendations of the World Health Organisation (WHO) and the recommendations of international organisations, FIP (Federation Internationale Pharmaceutique) and ESCP (European Society of Clinical Pharmacy).

ADMISSION REQUIREMENTS

Persons with secondary education will be admitted. Specified admission regulations are established by the school not later than 6 months before the admission.

Admission regulations are issued on the basis of the Minister of Education Decree No.33 (12.04.2002) "Regulations of Admission to Professional Education Institutions". Admission is accomplished in accordance with the schools teaching regulation instruction (procedure 4.6.3. of the qualification manual) verified by Director (Decree No. 1-4/34, 08.06.2000).

The bases of the matriculation are the arithmetic mean of the marks of the secondary education certificate, the results of the state exams (chemistry, biology) and an interview (aptitude for the profession).

REGULATION OF STUDIES AND THE CONDITIONS FOR THE SELECTION OF SUBJECTS

The nominal length of basic studies for the pharmacist speciality is 3 years.

I year

General subjects and subjects supporting the basic subjects comprise the major part of the first year studies. The structure and functioning of human organism; structure, properties and analysing methods of chemical substances; structure of plants and specific features of their functions; foundation of medical microbiology; foundation of some humanitarian and social sciences of general importance (general philosophy, psychology, sociology); principles of client service are treated. The

basic methods of first aid and their application are studied. The knowledge and practical skills in laboratory work with chemical substances and herbal stuff are acquired. The professional Latin is studied. The basic knowledge of modern computer technology is acquired. A short course of the history of pharmacy is passed.

The volume of theoretical studies (auditory work with the connected practical studies) is 37 CP (2 CP for optional subjects), the volume of the practical training in pharmacies is 3 CP.

The aim of the practical training is to get the primary view of the specificity and the regulation principles of pharmacy work and the elementary practical experience for the future work as a pharmacist.

Examinations:

1. Inorganic chemistry
2. Organic chemistry
3. Anatomy
4. Physiology
5. Latin

II year

The second year studies are mostly focused on the acquisition of the basic professional knowledge, beside that the deepened studies in some subjects that support the basic subjects are continued. The principles of pharmaceutical chemistry and analyses; pharmacological effects of the drugs on a human organism; the most important herbs and their biologically active ingredients; different forms of drugs, their technology and indications are studied. Biological fundamentals of using drugs are treated. Deepened knowledge of medical microbiology and the basic knowledge of genetics and pathological physiology are acquired. Students get to know natural products with curative effect. Studies of modern pharmacotherapy and the principles of pharmacy regulation applied in Estonia will be started.

The volume of theoretical studies (auditory work with the connected practical studies) is 30 CP, the volume of the practical training in pharmacies is 10 CP. The main purpose of the pharmacy practice is to acquire practical skills in making the most ordinary forms of drugs, over-the-counter sale, medical goods accounting, storage requirements and pharmaceutical counselling of the clients.

Examinations:

1. Pharmaceutical chemistry
2. Pharmacognosy
3. Pharmacology

III year

Deepened professional studies will be accomplished in the third year. Beside the main basic subjects also the connected special subjects are relatively important.

The basic knowledge of pharmacotherapy, commodity expertise of pharmaceutical and medical goods, regulation of pharmacy will be acquired. The studies of pharmaceutical technology will be finished. The principles and practical use of herbal substances in the prevention and treatment of diseases; the main problems of social pharmacy, veterinary pharmacy and toxicology are treated. Knowledge about the legal acts used for the regulation of pharmaceutical and medical activities is acquired.

In the third year the volume of theoretical studies (connected to the practical work in study environment) is 28 CP (4 CP for optional subjects), the volume of the practical training in pharmacies is 12 CP. The pharmacy practice will be conducted as the final pre- diploma practical training, during which the student will acquire and fix his/her practical skills in all spheres of pharmacy work determined by the professional requirements (working as a receptionist- controller included) according to his/her competence and responsibility level.

Examinations:

1. Pharmaceutical technology
2. Phytotherapy
3. Pharmacotherapy

Final examination

The third year the pharmaceutical studies will terminate with the final examination (4 CP), which consists of the following three parts:

- pharmacotherapy (including basic pharmacology);
- pharmaceutical technology;
- pharmaceutical organisation.

PRINCIPLES OF ASSESSMENT

The assessment is based on the Decree No. 10 (11.02.1999) and No. 40 (28.06.1999) of the Minister of Education.

The level of the achievement of subject objectives is estimated according to the previous Decrees, the instruction of examination regulations (verified 04.02.2002) and the examination regulations of different subjects.

The concrete principles of assessment are set by the study programme.

GRADUATION

A graduate is a student, who has completed all the respective subject courses, exams, preliminary exams, compulsory works, course papers and practical training determined by the study programme, and has passed the final examination.

Graduates are issued a diploma verifying higher professional education and the attached academic statement (diploma supplement).

SHORT DESCRIPTIONS OF SUBJECTS

1. BASIC SUBJECTS

Subject: HISTORY OF PHARMACY

Code of the subject: FA10103

Volume: 40 hours 1 CP

Period: I year

The development of pharmacy as a science is treated, special attention is paid to the development of pharmacy in the University of Tartu.

The subject supports the professional studies.

Assessment: preliminary exam.

Subject: PHARMACEUTICAL CHEMISTRY

Code of the subject: FK10203

Volume: 160 hours 4 CP

Period: II year

The analysing methods of pharmaceutical preparations; knowledge of chemical properties; manufacture, equation, quantitative analyses and storage of drugs used in treatment are acquired.

The subject supports the professional studies.

Prerequisite for: inorganic chemistry, organic chemistry, analytical chemistry.

Assessment: examination.

Subject: PHARMACEUTICAL TECHNOLOGY

Code of the subject: FTH10303

Volume: 200 hours 5 CP

Period: II and III year

Manufacturing of drugs in pharmacies and pharmaceutical industry is treated; during the practical training the skills in making powders, herbal teas, liquid and solid drugs are acquired; rules of a- and antiseptics, correct dispensing of drugs are treated.

Prerequisite for: pharmaceutical chemistry, microbiology, pharmacology, pharmacognosy.

Assessment: examination, state final.

Subject: PHARMACOGNOSY

Code of the subject: FGN10403

Volume: 140 hours 3,5 CP

Period: II year

The study of herbs, their species; regulations of collecting, drying and preservation; assessment of quality; analysing are treated. The development of pharmacognosy; connections between the folk and scientific medicine are studied.

The subject is a prerequisite for studying phytotherapy, herbal products, pharmacology and pharmacotherapy.

Assessment: examination.

Subject: BIOPHARMACY

Code of the subject: BF10503

Volume: 80 hours 2 CP

Period: II year

Pharmacokinetics and the biopharmacological meaning of drugs; the influence of manufacturing technology on the secretion of substances from drugs and their control techniques are treated.

Prerequisite subjects: pharmaceutical chemistry, pharmaceutical technology and pharmacology.

Assessment: graded preliminary exam.

Subject: PHARMACOLOGY Code of the subject: FL10603

Volume: 220 hour 5,5 CP

Period: II year

Concepts of poison and remedy are treated, administration methods of drugs, their effects on a healthy and unhealthy organism, their influence depending on the quality of drugs, dosage methods, possible side effects, ingredients having influence on the symphatic and parasymphatic nervous system are treated.

Prerequisite subjects: pharmaceutical chemistry, pharmacognosy.

Assessment: examination.

Subject: PHYTOTHERAPY

Code of the subject: FÜT10703

Volume: 100 hours 2,5 CP

Period: III year

Herbs containing glycosides, saponines, vitamins, alcaloids, flavonoids, tanners and other compounds are treated, the main attention is drawn to their curative effect.

Prerequisite subjects: pharmaceutical chemistry, pharmacognosy.

Assessment: examination.

Subject: NATURAL PRODUCTS

Code of the subject: LT10803

Volume: 60 hours 1, 5 CP

Period: II year

Products comparable to medications produced from natural substances or herbs, which have few side

effects, but have a stimulating effect on the organism and its convalescence are treated.

Prerequisite subjects: pharmacognosy, phytotherapy.

Assessment: graded preliminary exam.

Subject: PHARMACOTHERAPY

Code of the subject: FT10903

Volume: 200 hours 5 CP

Period: II and III year

The convalescence of organism and the prevention of diseases with drugs are treated. Different groups of drugs, their absorption and influence on a human organism, effects and side effects, effects in case of overdosage, elimination and secretion are treated. Prerequisite subjects: anatomy and physiology, pathology, Latin, pharmaceutical chemistry, pharmacology.

Assessment: examination, final examination.

Subject: PHARMACEUTICAL COMMODITY EXPERTISE

Code of the subject: FKT11003

Volume: 160 hours 4 CP

Period: II and III year

Pharmaceutical and medical goods that are sold at pharmacies and comparable institutions, their classification, storage conditions, dispensing requirements are treated. Thorough attention is drawn to the over-the-counter drugs and patent medicines of basic pharmacological groups.

Prerequisite subjects: pharmacology, pharmacotherapy, phytotherapy, natural products, pharmaceutical technology.

Assessment: graded preliminary exam.

Subject: REGULATION OF PHARMACY

Code of the subject: FKR11103

Volume: 120 hours 3 CP

Period: II and III year

A general description of pharmacy, organizing of work, valid legislation, financial counting, information work, dispensing of drugs with or without prescription, drug abuse, alternative cure methods and their connection with pharmacies, pharmacies' affiliation with the health care system are treated.

Prerequisite subjects: pharmaceutical technology, pharmacology, pharmacotherapy, pharmacognosy, phytotherapy, natural products.

Assessment: preliminary exam, state final.

Subject: SOCIAL PHARMACY

Code of the subject: SF11203

Volume: 40 hours 1 CP

Period: III year

The functions of medicines for different interest groups, organisational problems that are connected with the consumption and distribution of drugs, drug information; elaboration, manufacture and control of new medicines are treated. The patent policy and the repayment system, pharmaceutical marketing, the structure of pharmaceutical market and the state assistance in the pharmaceutical system are studied.

Assessment: graded preliminary exam.

Subject: VETERINARY PHARMACY

Code of the subject: VF11303

Volume: 60 hours 1, 5 CP

Period: III year

The influence of drugs on the normal and pathologically changed functions of the animal organism,

use of drugs in the prevention and cure of diseases is treated. Vitamins, vaccines, serums and food supplements used in veterinary are studied.

Prerequisite subjects: pharmacology, biopharmacy.

Assessment: graded preliminary exam.

Subject: TOXICOLOGY

Code of the subject: TO11403

Volume: 60 hours 1,5 CP

Period: III year

The influence of toxic substances on a human organism, first aid and treatment in case of poisonings, antidotes, prevention of poisonings, clinical signs of chronic poisoning and the principles of treatment are treated.

Prerequisite subjects: bio-pharmacy, pharmacology, pharmacotherapy.

Assessment: graded preliminary exam.

2. SUBJECTS SUPPORTING THE BASIC SUBJECTS

Subject: INORGANIC CHEMISTRY

Code of the subject: AOK20103

Volume: 120 hours 3 CP

Period: I year

Simple and combined substances (oxides, hydroxides, acids, salts), solutions, electrolytic dissociation of substances, hydrolysis, redox processes, the most important metal and non metal compounds are treated.

The subject supports the professional studies and is a prerequisite for studying analytical chemistry and pharmaceutical chemistry.

Assessment: examination.

Subject: ORGANIC CHEMISTRY Code of the subject: OK20203

Volume: 120 hours 3 CP

Period: I year

The principles of organic chemistry; organic compounds (carbohydrates, substances containing oxygen and nitrogen, saccharides, aromatic compounds, heterocyclic compounds); their synthesis; connections between compounds; chemical properties and medical use are treated.

The subject supports the professional studies and is a prerequisite for studying biochemistry and pharmaceutical chemistry.

Assessment: examination.

Subject: ANALYTICAL CHEMISTRY

Code of the subject: AK20303

Volume: 140 hours 3,5 CP

Period: I year

The essential nature of analytical chemistry, methods of application, determination of ions, analysis of solid substances, volumetric analyses, influence of cations and anions on a human organism and their medical use are treated. During the practical training the practical skills in making drug analyses are acquired.

The subject supports the professional studies and is a prerequisite for studying pharmaceutical chemistry.

Assessment: graded preliminary exam.

Subject: BIOCHEMISTRY

Code of the subject: BK20403

Volume: 80 hours 2 CP

Period: I year

The structure of substances in a living organism, chemical processes in a human organism, substance- and energy exchange, biological oxydations, biomolecules (proteins, lipids, carbohydrates), bioactive substances (vitamins, enzymes, hormones), body's need for food, adequate nutrition are treated. The subject supports the professional studies and is a prerequisite for studying pathology and pharmacotherapy.

Assessment: graded preliminary exam.

Subject: BOTANY

Code of the subject: BOT20503

Volume: 140 hours 3,5 CP

Period: I year

The variety of plants, structure of botanic cells, botanic tissues, species and structure of tissues, organs of plants, plant systematics, pharmaceutical use of plants are treated. In the course of practical training students get the experience in the work with microscope.

The subject supports the professional studies and is a prerequisite for studying pharmacognosy, phytotherapy and natural products.

Assessment: graded preliminary exam.

Subject: ANATOMY

Code of the subject: AN20603

Volume: 80 hours 2 CP

Period: I year

A human development, embryology, structure of human cells and tissues, organ systems and their functions, functions of hormonal and endocrinological system, possibilities of their registration and the standard values of the main parameters are treated.

The subject supports the professional studies and is a prerequisite for studying pathology, pharmacology, pharmacotherapy and phytotherapy.

Assessment: examination.

Subject: PHYSIOLOGY Code of the subject: FÜS20703

Volume: 120 hours 3 CP

Period: I year

A physiology deals with the processes in a human organism, starting from primitive irritability functions of a living matter to the highest expressions of the organism life in the interactions with environment.

Assessment: examination.

Subject: PATHOLOGY

Code of the subject: PL20803

Volume: 80 hours 2 CP

Period: II year

Alternative changes in cells, reactions of defensive adaptation, carcinogenesis, genetic disorders, pathological processes of different tissues and organ systems are treated.

Prerequisite subjects: anatomy, biochemistry, Latin.

Assessment: graded preliminary exam.

Subject: MICROBIOLOGY, A- AND ANTICEPTICS

Code of the subject: MB20903

Volume: 80 hours 1 CP

Period: I and II year

The structure and function of bacteria and viruses, principles of their classification, normal human microflora, pathogenetic microbes, study fundamentals of immunity and infections, antimicrobial agents, pharmaceutical preparations of microbial origin are treated.

The subject supports the professional studies and is a prerequisite for studying pathology, genetics, pharmacotherapy, veterinary pharmacy.
Study fundamentals of immunity and infections, possibilities of the prevention of diseases, different methods and means of disinfection and sterilization are treated.
Prerequisite subject: Latin.
Assessment: graded preliminary exam.

Subject: GENETICS Code of the subject: GE21003

Volume: 40 hours 1 CP

Period: II year

The nature of human heredity and mutability, questions of medical genetics are treated. The survey of the most common chromosome and gene disorders, application of genetics in medicine is given.

The subject supports the professional studies.

Assessment: graded preliminary exam.

Subject: LATIN Code of the subject: LK21103

Volume: 80 hours 2 CP

Period: I year

The pronunciation of Latin, reading of simple texts, morphology, basic pharmaceutical vocabulary, translation of medical texts, principles of writing prescriptions, the most important prescribing abbreviations are treated.

The subject supports the professional studies and is a prerequisite for studying anatomy and physiology, pathology, microbiology, botany.

Assessment: examination.

Subject: OCCUPATIONAL HEALTH Code of the subject: TH21203

Volume: 40 hours 1 CP

Period: III year

The conception and tasks of occupational health; regulation of occupational health in Estonia and in the countries of European Union; legal acts concerning the occupational health; occupational diseases and their expertise; ergonomics, ergonomical analyses of work and work environment; risks of occupational diseases in pharmacist's work and working place, possibilities of their prevention; occupational health counselling; regulation of primary and periodical health control in Estonia are treated.

The subject supports the professional studies.

Assessment: preliminary exam.

Subject: CLIENT SERVICE

Code of the subject: KLT21603

Volume: 40 hours 1 CP

Period: I and II year

The concept and nature of client service, sale and sales communication, argumentation, presentation of goods, handling of protests, sales ethics, communication standards are treated. The subject supports the professional studies.

Assessment: preliminary examination.

Subject: LEGISLATION Code of the subject: SA21303

Volume: 40 hours 1 CP

Period: III year

The nature of a state, the Estonian State Policy proceeding from the Constitution, health care legislation, work legislation, the Law of Public Health are treated.

The subject supports the professional studies.

Assessment: preliminary exam.

Subject: MANAGEMENT

Code of the subject: JÕ21403

Volume: 40 hours 1 CP

Period: I year

The principles of system and organisation theories, structures of organisations, the ways of management, the role of a specialist in the management, management of information and changes are treated.

Assessment: preliminary exam

Subject: PUBLIC HEALTH Code of the subject: RT21503

Volume: 40 hours 1 CP

Period: I year

The main trends in the European and Estonian health politics, principles of public health legislation, the main trends of health behavior and health promotion are treated.

Assessment: preliminary exam.

3. GENERAL SUBJECTS

Subject: PHILOSOPHY

Code of the subject: F30103

Volume: 40 hours 1 CP

Period: I year

The conceptions of philosophy, the basic problems of human theory in the Western philosophy, the European human conceptions from the enlightening philosophy till modern human conceptions are treated.

The subject is a prerequisite for studying the basic subjects.

Assessment: graded preliminary exam.

Subject: SOCIOLOGY Code of the subject: SL30203

Volume: 40 hours 1 CP

Period: I year

The concepts of sociology are treated, emphasizing on the possibilities of recognition and solution of the problems in a modern society.

The subject is connected with philosophy and social psychology.

Assessment: graded preliminary exam.

Subject: PSYCHOLOGY Code of the subject: P30303

Volume: 40 hours 1 CP

Period: I year

Psychology schools, survey of psychological processes, the concepts of healthy and disturbed person, communication processes and styles, non- verbal communication, attitudes, team- work are treated.

The subject supports the professional studies and is a prerequisite for studying client service.

Assessment: graded preliminary exam.

Subject: FIRST AID Code of the subject: EA30403

Volume: 40 hours 1 CP

Period: I year

The survey of critical conditions, principles of first aid, concept of death and resuscitation, the treatment of disturbances of vital functions, first aid in case of traumas and the adequate treatment of casualties till the arrival of professional help are treated.

The subject supports the professional studies.

Assessment: preliminary exam.

Subject: ANDRAGOGY

Code of the subject: AG30503

Volume: 40 hours 1 CP

Period: III year

The nature of a study process and the factors that have an influence on it, study motivation, methods of didactics, memory rules, specific features of adult education, self-analyses of the learner, cooperation between a student and a teacher are treated.

The subject supports the professional studies and is a prerequisite for studying client service.

Assessment: preliminary exam.

Subject: COMPUTER TRAINING

Code of the subject: AÕ30603

Volume: 80 hours 2 CP

Period: II year

Initial computer skills are given; the main attention is drawn to office programs and the use of Internet; correct methods of text writing and formation will be acquired.

The subject supports the professional studies.

Assessment: preliminary exam.

Subject: RUSSIAN

Code of the subject: VK30703

Volume: 120 hours 3 CP

Period: I year

The professional terminology, communication with patients, translation of professional literature and periodicals are treated.

The subject supports the professional studies.

Assessment: graded preliminary exam.

Subject: ESTONIAN

Code of the subject: EK30703

Volume: 120 hours 3 CP

Period: I year

The basic subjects that are necessary for the speciality are treated. Oral and written expression skills, formation of documents, compilation and presentation of written works are studied.

Assessment: graded preliminary exam.

Subject: ENGLISH

Code of the subject: IK30803

Volume: 120 hours 3 CP

Period: I and II year

Students acquire the vocabulary required for professional and client service sphere, work with professional scientific literature and periodicals.

The subject supports the professional studies.

Assessment: graded preliminary exam.

4. OPTIONAL SUBJECTS

Subject: ETHICS

Code of the subject: E40103

Volume: 40 hours 1 CP

The concept of ethics, theories, human rights, fundamentals of medical and business ethics are studied. The problems of financial ethics and the ways of solving the problems between health care workers and patients/clients are treated.

Assessment: preliminary exam.

Subject: RELIGIONS

Code of the subject: U40203

Volume: 40 hours 1 CP

The interpretation of religion concepts, their relations, resources and the basic modern trends will be given. The orientation in basic religious and moral problems related to the biggest world religions, modern ways of problem solving in everyday work are treated.

Assessment: preliminary exam.

Subject: ENGLISH

Code of the subject: IK40303

Volume: 80 hours 2 CP

Conversations between a client and a pharmacist- the vocabulary and its use in oral and written forms of expression, translation of prescriptions in English with the help of a dictionary are treated.

Assessment: graded preliminary exam.

Subject: FINNISH

Code of the subject: SMK40403

Volume: 80 hours 2 CP

Students acquire the vocabulary required for the professional and client service sphere, work with professional scientific literature and periodicals.

Assessment: graded preliminary exam.

Subject: RESEARCH METHODS

Code of the subject: UTM40503

Volume: 40 hours 1 CP

The importance of research work, its use in practice, different research methods, phases, the compilation of research object, the assessment of research are treated.

Assessment: preliminary exam.

Subject: NUTRITION

Code of the subject: TÕ40603

Volume: 40 hours 1 CP

A food as one of the most important factors having influence on a human organism is studied. Nutrition problems are treated in connection with the changes of environment and life quality. A body's need for food depending on sex, age and physical activity is treated. Mutual actions between different nutrients, reactions of organism to nutrients and the theory of balanced nutrition are treated.

Assessment: preliminary exam.

Subject: ERGONOMICS/ STUDY OF MOTION

Code of the subject: ER40703 Code of the subject: LÕ40803

Volume: 40 hours 1 CP

The kinds of movement and their influence on organism, pedagogical methods of physical education, ergonomics, health maintaining body postures are treated.

Assessment: preliminary exam.

Subject: CONDITIONS OF ADDICTION

Code of the subject: SS40903

Volume: 40 hours 1 CP

A survey of the psychological and social aspects of drug addiction, legal and illegal addictions, their prevention methods, descriptions of the current situation in Estonia and around the world are given.

Assessment: preliminary exam

Subject: ECOLOGY

Code of the subject: ÖK41003

Volume: 40 hours 1 CP

A human and the environment, the protection of environment, ecological principles of environmental education, ecology and practical activities of people, technogenic ecological systems, adaptation problems are treated.

Assessment: preliminary exam.

5. PRACTICAL TRAINING

Subject: PRACTICAL TRAINING- INTRODUCTORY PRACTICE IN A PHARMACY

Code of the subject: PR50103

Volume: 120 hours 3 CP

Period: I year

The practical training is accomplished in a pharmacy or a botanical garden. Organizing of work is studied, work safety and sanitary requirements are followed, skills in rational work organisation are acquired.

In a botanical garden the determination of herbs in nature, soil types and the features of their preparation, preparation of plants of vegetative reproduction, times of plantation, depth of plantation, proper seed, care of plants, greenhouse and campestrial work and the basic problems of plant cultivation as a prerequisite for studying pharmacognosy will be treated.

Assessment: graded preliminary exam.

Subject: PRACTICAL TRAINING- ASSISTANCE IN A PHARMACY

Code of the subject: PR50203

Volume: 160 hours 4 CP

Period: I year

Practical training bases are free sale pharmacies and dispensaries offering the service of pharmaceutical assistance. During the practical training the skills acquired during the course of the theory of pharmaceutical technology will be fixed, pharmaceutical analyses are made, interpretation of prescriptions in Latin is treated, different types of medicines are prepared.

Assessment: graded preliminary exam, assessment by the practical training base (pass/fail) on the assessment form, analyses and assessment of the practical training report during the practical seminar.

Subject: PRACTICAL TRAINING- REGULATION OF PHARMACY

Code of the subject: PR50303

Volume: 240 hours 6 CP

Period: II year

Practical training bases are free sale pharmacies and dispensaries. During the practical training students learn how to work with special software used in pharmacies, how to find information from medical databases; get to know the order of accepting prescriptions; get to know prescribed drugs, over-the-counter drugs and other medical goods; counselling of patients/clients is treated. The practical use of the knowledge and skills (acquired during the courses of communication psychology and andragogy) in the communication with patients; planning and regulation of the work of a smaller workgroup in a pharmacy; organizing of pharmacy work; principles of pharmaceutical economy; legal acts; formation of necessary documentation are treated.

Assessment: graded preliminary exam, assessment by the practical training base (pass/fail) on the assessment form, analyses and assessment of the practical training report during the practical seminar.

Subject: PRACTICAL TRAINING/ PRE- DIPLOMA PRACTICE

Code of the subject: PR50403

Volume: 480 hours 12 CP

Period: III year

Practical training bases are free sale pharmacies and dispensaries. Skills, knowledge and experience

acquired during the theoretical studies will be fixed, all the tasks proceeding from the professional standards of pharmacies will be accomplished according to the competence and responsibility level of students.

Assessment: graded preliminary exam, assessment by the practical training base (pass/fail) on the assessment form, analyses and assessment of the practical training report during the practical seminar.

6. FINAL EXAMINATION

Subject: FINAL EXAMINATION

Code of the subject: LE60003

Volume: 4 CP

Period: III year

The final examination includes all the basic subjects of the speciality integrated with the subjects supporting the basic studies.

The final examination consists of:

- Pharmacotherapy;
- Pharmaceutical technology;
- Organizing of pharmacy.

The examination enables to assess the quality of pharmaceutical tuition.

Answers will be given orally within three different days, the intervals between the days should be at least a week.

Assessment: grade