

**Curriculum: Proviisor/Pharmacy (80419)
bachelor's and master's integrated studies
2009/2010. study year**

University of Tartu
faculty of medicine

503 integreeritud õpe (bakalaureus+magister) alates 2002, ISCED-97 tase 5A1

Õppevaldkond: Tervis ja heaolu

Õppesuund: Tervis

Õppekava rühm: Farmaatsia

Õppekavagrupp: Meditsiin

Õppekeel: eesti

Õpiväljundite saavutamiseks vajalikud teised keeled: inglise

Õppevorm: päevane õpe

Nominaalkestus: 5 aastat

Credits: 300 ECTS

Antava kraadi nimetus: farmaatsiamagister

Antava kraadi nimetus inglise keeles: Master of Science in Pharmacy

Lõpetamisel väljastatav dokument: Diplom

Confirmed in university counsel in 06.06.1997

Added to ministry's registry on 22.03.2006

Akrediteeritud (27.01.2009 - 27.01.2016)

Programmijuht: Peep Veski (22.04.2008 -), Toivo Hinrikus (22.04.2008 -)

Admission requirements:

National examinations: biology, chemistry, physics, mathematics (the applicant has to choose 2 examinations out of 4), essay, foreign language. All applicants are required to be sufficiently fluent in Estonian at the time of admission to the university.

Objective of curriculum:

The aim of the programme is to acquire the theoretical knowledge and practical skills required for the profession of a pharmacist.

Õpiväljundid:

.

Brief description of curriculum:

Tuition in the basic course in pharmacy is conducted according to the course system where a student passes the subjects in a strict order provided by the curriculum. The curriculum consists of theoretical studies, medical practice and independent research work. The subjects in the theoretical programme are divided into obligatory, elective and optional subjects. Practice is arranged during the fifth course in pharmacies, laboratories conducting counter-analyses, pharmaceutical companies and wholesale companies. The basic course terminates with the defence of the research paper and a final examination.

1. Compulsory subjects	224 ECTS
1.1. First course compulsory subjects	51 ECTS
ARFS.01.023 Biophysics	4 ECTS
ARFS.01.063 Human Physiology	10 ECTS
ARAN.01.034 Anatomy	5 ECTS
ARFA.01.071 Introduction to the pharmacy and the history of pharmacy	3 ECTS
ARFA.02.098 Pharmaceutical Terminology	3 ECTS
FLKE.02.199 Latin in Pharmacy	3 ECTS
MTMS.01.085 Statistical Analysis	4 ECTS
ARFA.01.072 Pharmacognocny I	3 ECTS
ARFA.02.099 Analytical Chemistry	12 ECTS
ARMB.00.001 Medical Microbiology	6 ECTS
LOKT.00.004 General and Inorganic Chemistry	6 ECTS
1.2. Second course compulsory subjects	52 ECTS
ARFS.01.063 Human Physiology	10 ECTS
ARMP.01.030 Genetics	3 ECTS
ARFA.02.099 Analytical Chemistry	12 ECTS
ARMB.01.053 Clinical Microbiology	2 ECTS
ARFA.02.103 Pharmaceutical Excipients	5 ECTS
ARBK.01.042 Bioorganic Chemistry	5 ECTS
ARBK.01.043 Medical Biochemistry	5 ECTS
ARFA.02.108 Bioethics	4 ECTS
ARFA.02.109 Pharmaceutical Chemistry I	9 ECTS
ARMP.03.031 Pathophysiology	6 ECTS
ARPO.00.020 Primary care medicine	5 ECTS
1.3. Third course compulsory subjects	52 ECTS
ARFS.01.062 Biotechnology	3 ECTS
ARFA.01.076 Pharmacognocny II	8 ECTS
ARFA.02.112 Pharmaceutical Chemistry II	8 ECTS
ARFA.02.113 Pharmaceutical Technology	22 ECTS
ARFA.01.077 Pharmacognocny III	4 ECTS
ARSK.03.017 Introduction to the Laboratory Medicine	2 ECTS
ARFR.02.051 Pharmacology	11 ECTS
1.4. Fourth course compulsory subjects	51 ECTS
ARKI.01.004 First Aid	3 ECTS
ARMP.02.016 Immunology	2 ECTS
ARFA.01.059 Pharmacoepidemiology and Pharmacoeconomics	3 ECTS
ARFR.02.034 Drug Toxicology	3 ECTS
ARFA.02.113 Pharmaceutical Technology	22 ECTS
ARFR.02.052 Pharmacotherapy	5 ECTS
ARFR.03.018 Clinical Pharmacology	2 ECTS
ARFA.02.121 Biopharmacy	7 ECTS
ARFA.01.082 Social Pharmacy and Drug Safety	11 ECTS
ARFA.02.122 ...	6 ECTS
ARFA.02.123 Metabolism of medicines	3 ECTS
1.5. Fifth course	18 ECTS
ARFA.02.040 Designing of Research Work	1 ECTS
ARFA.02.044 Pharmaceutical Commodities	4 ECTS
ARFA.00.057 Diploma Work	6 ECTS
1.5.1. seminar of research	7 ECTS
ARFA.01.078 Research Seminar on Pharmacognosy	7 ECTS

ARFA.01.080	Research Seminar on Social Pharmacy	7 ECTS
ARFA.02.116	Research Seminar on Pharmaceutical Technology	7 ECTS
ARFA.02.117	Research Seminar on Pharmaceutical Chemistry	7 ECTS
ARFA.02.118	Seminars of Research in History of Pharmacy	7 ECTS
2. Elective courses		20 ECTS
2.1. First course elective subjects		6 ECTS
FLFI.00.002	Introduction to Philosophy	2 ECTS
ARLA.01.033	Why and to Which Factors We are Allergic?	2 ECTS
ARLA.01.034	Neonatal Physiology and Behavior. Breastfeeding.	2 ECTS
ARTH.04.023	Prevention of HIV/AIDS. HIV Positive Patient.	2 ECTS
ARTH.04.024	Smoking and Health	1 ECTS
ARFA.02.080	Exercises and Problems in Pharmaceutical Analysis	1 ECTS
ARTH.04.022	Principles of Sexual Education According to Peer Education Methodology	3 ECTS
ARSL.01.015	Spectacles, Contact lenses and Refractive Surgery	1 ECTS
ARSK.00.009	Gerontology. Introduction.(Web- based)	3 ECTS
FLKE.03.105	Estonian for Students of Medicine (Preparation Course), Level A1 > A2	6 ECTS
LOKT.01.017	Solutions	2 ECTS
2.2. Second course elective subjects		5 ECTS
ARMP.03.010	Cellular Injury Mechanism. Medical and Nonmedical Prophylaxis	.75 ECTS
ARFA.02.019	Propaedeutical Training	3 ECTS
ARFS.01.005	Neurophysiology of Pain	2 ECTS
ARMB.01.032	The Principles of Clinical Use of Antimicrobial Treatment	1.5 ECTS
ARBK.01.021	Basic Knowledge for the Research in Medical Biochemistry (I)	2 ECTS
ARMP.03.019	Basic Research in Pathophysiology I	6 ECTS
ARMP.03.020	Basic Research in Pathophysiology II	6 ECTS
ARFR.02.031	Student Research in Pharmacology and Drug Toxicology I	8 ECTS
ARLA.01.033	Why and to Which Factors We are Allergic?	2 ECTS
ARLA.01.034	Neonatal Physiology and Behavior. Breastfeeding.	2 ECTS
ARTH.04.023	Prevention of HIV/AIDS. HIV Positive Patient.	2 ECTS
ARTH.04.024	Smoking and Health	1 ECTS
ARFA.02.080	Exercises and Problems in Pharmaceutical Analysis	1 ECTS
FLKE.03.060	Estonian for Students of Medicine (Based on Russian), Level B2.1 > C1.1	6 ECTS
ARTH.04.022	Principles of Sexual Education According to Peer Education Methodology	3 ECTS
ARSL.01.015	Spectacles, Contact lenses and Refractive Surgery	1 ECTS
ARSK.00.009	Gerontology. Introduction.(Web- based)	3 ECTS
2.3. Third course elective subjects		5 ECTS
ARFA.02.029	Drug Classification	1.5 ECTS
ARTH.01.042	Environmental and Occupational Health	2 ECTS
ARTH.01.040	Work Stress and Health	2 ECTS
ARFA.02.025	Analysis of Dosage Forms	1 ECTS
ARFA.02.015	Synthesis of Drug Chemicals	2 ECTS
ARTH.01.014	Water and Health	2 ECTS
ARFS.01.005	Neurophysiology of Pain	2 ECTS
ARTH.04.018	Health Promotion	2 ECTS
ARMP.03.019	Basic Research in Pathophysiology I	6 ECTS

ARMP.03.020	Basic Research in Pathophysiology II	6 ECTS
ARTH.01.080	Environmental and Occupational Toxicology	3 ECTS
ARMP.03.025	Pathophysiology of Stress	1 ECTS
ARFR.02.031	Student Research in Pharmacology and Drug Toxicology I	8 ECTS
ARFR.02.032	Student Research in Pharmacology and Drug Toxicology II	8 ECTS
ARLA.01.033	Why and to Which Factors We are Allergic?	2 ECTS
ARLA.01.034	Neonatal Physiology and Behavior. Breastfeeding.	2 ECTS
ARTH.04.023	Prevention of HIV/AIDS. HIV Positive Patient.	2 ECTS
ARTH.04.024	Smoking and Health	1 ECTS
ARFA.02.080	Exercises and Problems in Pharmaceutical Analysis	1 ECTS
ARFA.02.081	Radiopharmaceuticals	1 ECTS
ARMP.03.028	Pathophysiology of the Microcirculation	1.5 ECTS
ARTH.04.022	Principles of Sexual Education According to Peer Education Methodology	3 ECTS
ARSL.01.015	Spectacles, Contact lenses and Refractive Surgery	1 ECTS
ARBK.01.035	Basic Knowledge for the Research in Medical Biochemistry (II)	5 ECTS
ARFR.02.036	Music, brain and emotions	2 ECTS
ARFR.02.041	Antiinflammatory Agents	2 ECTS
ARSK.00.009	Gerontology. Introduction.(Web- based)	3 ECTS
ARFR.02.047	Introduction into toxicology	3 ECTS
2.4. Fourth course elective subjects		4 ECTS
ARFA.02.029	Drug Classification	1.5 ECTS
ARTH.01.042	Environmental and Occupational Health	2 ECTS
ARTH.01.040	Work Stress and Health	2 ECTS
ARFA.02.025	Analysis of Dosage Forms	1 ECTS
AROT.01.013	Planning and Designing of Developmental Projects in Nursing	3 ECTS
ARFA.02.015	Synthesis of Drug Chemicals	2 ECTS
ARTH.01.014	Water and Health	2 ECTS
ARFS.01.005	Neurophysiology of Pain	2 ECTS
ARFA.02.038	Bioadhesive Formulations	2 ECTS
ARTH.04.018	Health Promotion	2 ECTS
ARMP.03.019	Basic Research in Pathophysiology I	6 ECTS
ARMP.03.020	Basic Research in Pathophysiology II	6 ECTS
ARTH.01.080	Environmental and Occupational Toxicology	3 ECTS
ARFR.02.031	Student Research in Pharmacology and Drug Toxicology I	8 ECTS
ARFR.02.032	Student Research in Pharmacology and Drug Toxicology II	8 ECTS
ARLA.01.033	Why and to Which Factors We are Allergic?	2 ECTS
ARLA.01.034	Neonatal Physiology and Behavior. Breastfeeding.	2 ECTS
ARTH.04.023	Prevention of HIV/AIDS. HIV Positive Patient.	2 ECTS
ARTH.04.024	Smoking and Health	1 ECTS
ARFA.02.080	Exercises and Problems in Pharmaceutical Analysis	1 ECTS
ARFA.02.081	Radiopharmaceuticals	1 ECTS
ARTH.04.022	Principles of Sexual Education According to Peer Education Methodology	3 ECTS
ARFA.02.083	Biopharmaceutical Aspects of Generic Formulations	2 ECTS
ARSL.01.015	Spectacles, Contact lenses and Refractive Surgery	1 ECTS
ARAR.00.001	Medical Law	2 ECTS
ARFR.02.036	Music, brain and emotions	2 ECTS
ARFR.02.041	Antiinflammatory Agents	2 ECTS

AROT.00.029	Nursing Didactics I	3 ECTS
AROT.00.030	Andragogy and Higher Education	3 ECTS
AROT.00.033	Applications of Developmental Psychology in Nursing	3 ECTS
AROT.00.036	Health Care System and Policy	3 ECTS
ARSK.00.009	Gerontology. Introduction.(Web- based)	3 ECTS
ARFR.02.047	Introduction into toxicology	3 ECTS
3. Pharmacy Practice		37 ECTS
ARFA.02.071	Pharmacy Practice	37 ECTS
4. Final Examination		5 ECTS
ARFA.02.124	Graduation Examination	5 ECTS
5. Optional subjects		12 ECTS