

# Subject program „1RVV16/P-2 Pharmacy Internship II”

Year: 2018/2019

Status: Active

Subject language Estonian  
Creditpoints 25 ECTS  
Grading method Distinctive (letters)  
Academicians Helve Kirm

## General

Subject objective To reinforce knowledge acquired in theoretical and practical studies.

Learning outcomes Upon completion of the subject, the student:

1. Knows the technologies of manufacturing powders, medicinal teas, liquid medicines, ointments, suppositories and injection drugs and is able to, on the basis of prescriptions, prepare magistral formulae.
2. Has an overview of the over-the-counter and prescription drugs, other medical use goods and health products sold in Estonian pharmacies.
3. Knows the nomenclature of over-the-counter and prescription drugs containing the main active substances and is able to comparatively evaluate pharmaceutical preparations provided by different manufacturers.
4. Is familiar with the work organization of the pharmacy and with the system of medicine handling.
5. Analyses in a seminar, the work process and the final result regarding the technological, organizational and supervision related components, and is able to provide evaluation.

Learning outcomes	
1.Outcome	Knows the technologies of manufacturing powders, medicinal teas, liquid medicines, ointments, suppositories and injection drugs and is able to, on the basis of prescriptions, prepare magistral formulae.
grade „Sufficient(E)”	Student has sufficient knowledge on the technologies of manufacturing powders, medicinal teas, liquid medicines, ointments and suppositories and is able to prepare magistral formulae when following the doctor's prescriptions.
grade „Satisfactory(D)”	Student has satisfactory knowledge on the technologies of manufacturing powders, medicinal teas, liquid medicines, ointments and suppositories and is able to prepare magistral formulae when following the doctor's prescriptions.

<b>Learning outcomes</b>	
<b>grade „Good(C)”</b>	Student has good knowledge on the technologies of manufacturing powders, medicinal teas, liquid medicines, ointments and suppositories and is able to prepare magistral formulae when following the doctor's prescriptions.
<b>grade „Very good(B)”</b>	Student has very good knowledge on the technologies of manufacturing powders, medicinal teas, liquid medicines, ointments and suppositories and is able to prepare magistral formulae when following the doctor's prescriptions.
<b>grade „Excellent(A)”</b>	Student has excellent knowledge on the technologies of manufacturing powders, medicinal teas, liquid medicines, ointments and suppositories and is able to prepare magistral formulae when following the doctor's prescriptions.
2.Outcome	Has an overview of the over-the-counter and prescription drugs, other medical use goods and health products sold in Estonian pharmacies.
<b>grade „Sufficient(E)”</b>	Student has sufficient knowledge of the over-the-counter and prescription drugs, other medical use goods and health products sold in Estonian pharmacies.
<b>grade „Satisfactory(D)”</b>	Student has satisfactory knowledge of the over-the-counter and prescription drugs, other medical use goods and health products sold in Estonian pharmacies.
<b>grade „Good(C)”</b>	Student has good knowledge of the over-the-counter and prescription drugs, other medical use goods and health products sold in Estonian pharmacies.
<b>grade „Very good(B)”</b>	Student has very good knowledge of the over-the-counter and prescription drugs, other medical use goods and health products sold in Estonian pharmacies.
<b>grade „Excellent(A)”</b>	Student has excellent knowledge of the over-the-counter and prescription drugs, other medical use goods and health products sold in Estonian pharmacies.
3.Outcome	Student knows the nomenclature of over-the-counter and prescription drugs containing the main active substances and is able to comparatively evaluate pharmaceutical preparations provided by different manufacturers.
<b>grade „Sufficient(E)”</b>	Student has sufficient knowledge on the nomenclature of over-the-counter medicines containing main active substances and is able to comparatively evaluate pharmaceutical preparations provided by different manufacturers but in some preparations more specific knowledge is lacking.
<b>grade „Satisfactory(D)”</b>	Student has satisfactory knowledge on the nomenclature of over-the-counter medicines containing main active substances and is able to comparatively evaluate pharmaceutical preparations provided by different manufacturers but in some preparations the knowledge is lacking.

<b>Learning outcomes</b>	
<b>grade „Good(C)”</b>	Student has good knowledge on the nomenclature of over-the-counter medicines containing main active substances and other pharmacy products and is able to comparatively evaluate pharmaceutical preparations provided by different manufacturers but in case of some preparations the knowledge is superficial.
<b>grade „Very good(B)”</b>	Student knows the nomenclature on the over-the-counter medicines containing main active substances very well and is able to comparatively evaluate pharmaceutical preparations provided by different manufacturers but in case of some preparation the knowledge may be slightly superficial.
<b>grade „Excellent(A)”</b>	Student has excellent knowledge on the nomenclature of the over-the-counter medicines containing main active substances and is able to comparatively evaluate pharmaceutical preparations provided by different manufacturers.
4.Outcome	Student is familiar with the work organization of the pharmacy and with the system of medicine handling.
<b>grade „Sufficient(E)”</b>	Student has sufficient knowledge of the work organization of the pharmacy and the system of drug handling but lacks more specific knowledge.
<b>grade „Satisfactory(D)”</b>	Student has satisfactory knowledge of the work organization of the pharmacy and the system of drug handling but in many cases the knowledge is too restricted.
<b>grade „Good(C)”</b>	Student has good knowledge of the work organization of the pharmacy and the system of drug handling but in many cases the knowledge is too superficial.
<b>grade „Very good(B)”</b>	Student has very good knowledge of the work organization of the pharmacy and the system of drug handling but in some cases the knowledge may be a little superficial.
<b>grade „Excellent(A)”</b>	Student has excellent knowledge of the work organization of the pharmacy and the system of drug handling.
5.Outcome	Student analyses in a seminar, the work process and the final result regarding the technological, organizational and supervision related components, and is able to provide evaluation.
<b>grade „Sufficient(E)”</b>	Student adequately analyzes the work process and the end result in terms of technological, coaching and organizational components and is able to evaluate it.
<b>grade „Satisfactory(D)”</b>	Student adequately analyzes the work process and the end result in terms of technological, coaching and organizational components and is able to evaluate it.
<b>grade „Good(C)”</b>	Student thoroughly analyzes the work process and the end result in terms of technological, coaching and organizational components and is able to evaluate it.
<b>grade „Very good(B)”</b>	Student analyzes the work process and the end result very well in terms of technological, coaching and organizational components and is able to evaluate it.
<b>grade „Excellent(A)”</b>	Student has an excellent analysis of the work process and the end result in terms of technological, coaching and organizational components and is able to evaluate it.

## Subject program parts

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Changer confirm	Merle Kiloman 27.08.2019
Reviewer confirm	Merle Kiloman 27.08.2019
Administrator confirm	Kristiina Puura 27.08.2019

### Study in different study forms

Study form	Lecture	Excerice	Seminar	Practice	Homework	Internet study	Out of office	Practical training
All study forms			8.0		642.0			

### General description

Subject Pharmacy Internship II is an obligatory subject of the module Preparing and Dispensing Medicines in the Curriculum of Assistant Pharmacist. In order to take Pharmacy Internship II all first and second year subjects must be passed with a positive result. Passing Pharmacy Internship II is the prerequisite of taking the final exam or defending the final paper.

### Forms of studying

The topics addressed within the subject Pharmacy Internship II are:

- 1) dispensing medicines according to the differently written prescriptions;
- 2) dispensing necessary medicines, medicinal preparations and medical products to the pharmacy clients;
- 3) medicine related counselling of the clients;
- 4) dispensing prescription medicines;
- 5) admission of products, checking and comparing the products to their accompanying documentation, storing the products and monitoring the storage conditions.

### Teaching methods

Internship in the work environment: preparing magistral formulae, dispensing over-the-counter and prescription medicines, medicine-related counselling of clients.

### Content and method for independent study

Implementing theoretical knowledge into practice, revising and reinforcing the knowledge and skills acquired during practical work, compiling practical training reports in Moodle environment.

### Required reading (K)

Langley, Cristhopher A. (2008). Pharmaceutical compounding and dispensing. London: Pharmaceutical Press.

A. J. Winfield, R. M. E. Richards. (2004). Pharmaceutical practice. Churchill Livingstone.

### Recommended reading (T)

Pharmacy related legislation and guides.

Journals "Eesti Rohuteadlane" and "Apteeker"

### Methods of assessment

Final evaluation to the practical training is given by the supervising lecturer from the college. The practical training report compiled by the student in the Moodle environment is the basis of evaluation together with general evaluation and remarks from the practical training base supervisor on the student's activities when passing the practical training.

In case the practical training evaluation is not passed, the student has not passed the practical training in total and has not completed the curriculum to its full extent in order to be granted the diploma. Student might be given the possibility to take the practical training again. The corresponding decision will be made and the time and place for the second practical training to be taken is determined by the head of the Curriculum of Assistant Pharmacist.

### Additional information

The basis of evaluating Pharmacy Internship II is the report compiled by the student in Moodle environment and the feedback from the pharmacy supervisor in the Moodle course "Pharmacy Internship II 2018/2019" (<https://moodle.hitsa.ee/course/view.php?id=25019>).

### Subject program

Nr	Activity	Hours	Literature	Academicians
1.	Praktikas esinevate pulbrite, vedelravimite, salvide, suposiitide ja süstimisravimite valmistamine erinevalt välja kirjutatud retseptide alusel. / Preparing powders, liquid medicines, ointments, suppositories and injective medicines according to the prescriptions.	110	Apteegialased õigusaktid ja juhendid. / Pharmacy legislation and guidance. J. F. Marriott, K. A. Wilson, C. A. Langley, D. Belcher (2014). Pharmaceutical compounding and dispensing. London: Pharmaceutical Press. D. Volmer, K. Teder, V. Matto, A. Raal (2017). Praktiline sotsiaalfarmaatsia. Ravimsuhtlemine apteegis. Tartu Ülikooli Kirjastus.	Helve Kirm

2.	Apteegi klientidele nende poolt soovitud käsimüügiravimite, ravimdroogide ja meditsiinkauba väljastamine ning klientide nõustamine. / Dispensing over-the-counter medicines, medicinal drugs and medical products to the clients of the pharmacy, counselling the clients.	182	Apteegialased õigusaktid ja juhendid. Pharmacy legislation and guidance. J. F. Marriott, K. A. Wilson, C. A. Langley, D. Belcher (2014). Pharmaceutical compounding and dispensing. London: Pharmaceutical Press. D. Volmer, K. Teder, V. Matto, A. Raal (2017). Praktiline sotsiaalfarmaatsia. Ravimisuhtlemine apteegis. Tartu Ülikooli Kirjastus.	Helve Kirm
3.	Retseptide alusel ravimite väljastamine ja klientide/patsientide ravimitealane nõustamine. Eriarvestusel ja arvestusel olevaid aineid (narkootilised ja psühhotroopsed ained) sisaldavate ravimite väljastamine ja vastava arvestuse pidamine. / Dispensing prescription medicines and counselling clients on the use of medicines. Dispensing substances on special and regular record books (narcotics and psychotropic substances) and keeping the record books.	310	Apteegialased õigusaktid ja juhendid. / Pharmacy legislation and guidance. J. F. Marriott, K. A. Wilson, C. A. Langley, D. Belcher (2014). Pharmaceutical compounding and dispensing. London: Pharmaceutical Press. D. Volmer, K. Teder, V. Matto, A. Raal (2017). Praktiline sotsiaalfarmaatsia. Ravimisuhtlemine apteegis. Tartu Ülikooli Kirjastus.	Helve Kirm

4.	<p>Apteeki saabunud kauba vastuvõtmine, kontrollimine, paigutamine apteegi hoiu- ja müügipaikadesse ning hoitava kauba säilitustingimuste jälgimine. / Admission of the products to the pharmacy, checking the products and storing them into the storage spaces, monitoring the storage conditions of the preserved products.</p>	40	<p>Apteegialased õigusaktid ja juhendid. Pharmacy legislation and guidance. J. F. Marriott, K. A. Wilson, C. A. Langley, D. Belcher (2014). Pharmaceutical compounding and dispensing. London: Pharmaceutical Press. D. Volmer, K. Teder, V. Matto, A. Raal (2017). Praktiline sotsiaalfarmaatsia. Ravimisuhtlemine apteegis. Tartu Ülikooli Kirjastus.</p>	Helve Kirm
5.	<p>Seminarid (lähetusseminar 4h enne praktikale minekut ja praktika kaitsmiseminar 4h pärast praktikalt tulekut)</p>	8	<p>Apteegialased õigusaktid ja juhendid. Pharmacy legislation and guidance.</p>	Helve Kirm