



## Pharmacy

ECTS: 2.00

### SUBJECT MATTER CONTENT

#### LECTURE

Introduction (definitions, nomenclature, classes of medicines, pharmacopoeia etc.); the routes of drug administration; characteristics of the major drug dosage forms/drug formulations: powders, suppositories, pilules, ointments, liniments, creams, pastes, tablets, capsules (including modified-release dosage forms for oral administration), granules, solutions, emulsions, parenteral preparations, preparations for inhalations, aerosols, tinctures, extracts, infusions, decoctions, herbs, eye preparations, skin patches for transdermal administration, dosage forms for veterinary use only.

#### CLASSES

Prescription writing – introduction (rules and regulations, which are applied for writing prescriptions, parts of a prescription, weights, measures, prescription abbreviations, latin phrases etc.; prescription writing classes: suppositories, powders, ointments, liniments, pastes, creams, tablets, parenteral preparations, solutions, preparations for inhalations, tinctures, extracts, infusions, decoctions, herbs etc.; preparation of selected compounded formulations (suppositories, divided powders, eye drops, solutions, ointments).

#### TEACHING OBJECTIVE

The main goal is the achievement by students: a) knowledge and skills with respect to how to write in the proper manner the prescriptions; b) specialized knowledge in properties of particular manufactured and compounded formulations; c) knowledge and skills with respect to legal and administrative rules regulating the use of drugs in veterinary medicine

#### DESCRIPTION OF THE LEARNING OUTCOMES OF THE COURSE IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS OF THE SECOND LEVEL LEARNING OUTCOMES FOR QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY:

**Symbols for outcomes related to the discipline:**

R/WA\_P7S+++

**Symbols for outcomes related to the field of study:**

A.W19. +, K.1.+ , A.W20. +, K.4.+ , B.U9. +, B.U10. +

#### LEARNING OUTCOMES:

##### Knowledge:

W1 – Student; (a) knows the rules and regulations concerning the writing of prescriptions; (b) has sufficient knowledge on properties and production of particular manufactured dosage forms; (c) ) has sufficient knowledge on properties and preparation of particular compounded formulations; (d) knows a bioavailability of particular dosage forms

**Legal acts specifying learning outcomes:**

682/2020

**Disciplines:** Veterinary science

**Status of the course:**Obligatoryjny

**Group of courses:**A - przedmioty podstawowe

**Code:** ISCED 0841

**Field of study:**Veterinary Medicine

**Scope of education:**

**Profile of education:** General academic

**Form of studies:** full-time

**Level of studies:** uniform master's studies

**Year/semester:** 3/5

**Types of classes:** Lecture, Classes

**Number of hours in**

**semester:**Lecture: 9.00, Classes: 16.00

**Language of instruction:**Polish

**Introductory subject:** Chemistry and biochemistry.

**Prerequisites:** Appropriate level of knowledge in the above mentioned subjects.

**Name of the organisational unit conducting the course:**Katedra Farmakologii i Toksykologii

**Person responsible for the realization of the course:**prof. dr hab. wet. Tomasz Maślanka

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**Additional remarks:**

depending on its route of administration; (e) knows latin nomenclature needed to prescription writing; knows pharmaceutical law; (f) knows the cascade rule (the prescribing cascade) in veterinary practice.

#### **Skills:**

U1 – Student: (a) is able to apply the cascade rule (the prescribing cascade) in veterinary practice; (b) is able to write prescriptions correctly for particular manufactured dosage forms; (c) is able to write prescriptions correctly for particular compounded formulations (especially divided powders, suppositories, ophthalmic ointments and drops, suspensions and solutions for external use); (d) is taking into consideration – during prescription writing – limitations and other factors concerning prescribing of narcotic and psychotropic drugs; (e) is able to prepare the selected compounded formulations.

#### **Social competence:**

K1 – Student shows initiative and updates the knowledge in the pharmacy field. Student is aware of the benefits and risks associated with drugs use.

#### **TEACHING FORMS AND METHODS:**

Lecture(W1;U1;):Informative lectures with multimedia presentations

Classes(W1;U1;K1;):Practical classes: writing of prescriptions for particular manufactured and compounded formulations; laboratory classes: preparation of the selected compounded formulations.

#### **FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:**

Lecture (Colloquium test) - At the end of semester the written colloquium will be conducted. The colloquium consists of two independent parts: (1) the part devoted to the verification of achievement of theoretical knowledge; (2) the part devoted to the verification of achievement of the prescription writing skills. The requirement for passing the colloquium is to obtain a positive grade for both its parts. The grade on each part of the colloquium is obtained by averaging the grades obtained on particular questions. Student who fails colloquium or test may retake it only twice. In order to pass the subject it is required to have passed the colloquium and all tests. Final grade for the subject is obtained by averaging the grades (including failing grades) on the colloquium and all tests taking place during the course. Rules for rounding grades: the average  $\geq 4,76$ : excellent (5,0); the average 4,26 – 4,75: very good (4,5); the average: 3,76 – 4,25: good (4,0); the average 3,26 – 3,75: satisfactory (3,5); the average  $\leq 3,25$ : sufficient (3,0). -

Classes (Written test) - There will be three descriptive tests during the semester. To pass the test student it is required to obtain a positive grade for each of questions. Student who fails test may retake it only twice. Rules for rounding grades are described above. -

#### **BASIC LITERATURE:**

1. L. Krówczyński, *Receptura dla studentów farmacji*, Wyd. Wydawnictwo lekarskie PZWL, R. 1997
2. R. Jachowicz, *Receptura apteczna*, Wyd. Wydawnictwo lekarskie, R. 2008
3. K. Janicki, L. Krówczyński, *Receptura dla lekarzy i studentów*, Wyd. Wydawnictwo lekarskie PZWL, R. 1999

#### **SUPPLEMENTARY LITERATURE:**

1. R.H. Muller, G. Hildebrand, *Technologia nowoczesnych postaci leków*, Wyd. Wydawnictwo lekarskie PZWL, R. 2003