





TOTAL per year:												
Department of Clinical Pharmacology	5			15							7,5	
Educational objectives (max. 6 items) Familiarize students with the practical dimension: <b>C1. risks associated with the applied drug therapy and methods of enhancing its efficacy and safety, including the rationalization of analgesic therapy and antibiotic therapy,</b> <b>C2. interpretation of information materials for medicines,</b> <b>C3. clinical and economic evaluation of health technologies.</b>												
Education result matrix for module/course in relation to verification methods of the intended education result and the type of class												
Number of course education result	Number of major education result	Student who completes the module/course knows/is able to					Methods of verification of intended education results (forming and summarizing)			Form of didactic class <i>**enter the abbreviation</i>		
W 1	E.W 8	Knows and understands the course and symptoms of the aging process and the principles of comprehensive geriatric assessment and multidisciplinary care in relation to an elderly patient.					Summary test with 5 open questions.			L, MC,SS		
W 2	E.W 10	Knows and understands the basic principles of pharmacotherapy of diseases in the elderly.										
W 3	E.W 29	Knows the principles of treatment of pain, including cancer pain and chronic pain.										
W 4	E.W 40	Lists the indications for the implementation of the therapeutic drug monitoring.										
W 5	E.W 41	Defines the basic concepts of pharmaco-economic.										
U 1	E.U 17	Analyses the possible adverse effects of individual drugs and the interactions between them.					Assessment of the use of theoretical knowledge to solve clinical cases including material presented during lectures, classes and mandatory literature			L, MC, SS		
U 2	E.U 18	Proposed individualization of existing guidelines and other therapeutic treatments to ineffectiveness or contraindications to standard therapy.										
U 3	E.U 19	Recognizes the symptoms of drug dependence and proposes therapeutic treatment.										
U 4	E.U 31	Interprets characteristics of pharmaceutical medicines and critically evaluate advertising relating to drugs.										
** L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical classes; LC – laboratory												



classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP – practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning .

Please mark on scale 1-5 how the above effects place your classes in the following categories:  
communication of knowledge, skills or forming attitudes:

Knowledge: 5

Skills: 5

**Student's amount of work (balance of ECTS points)**

Student's workload (class participation, activity, preparation, etc.)	Student Workload (h)
1. Contact hours:	20
2. Student's own work (self-study):	7,5
Total student's workload	27,5
ECTS points for module/course	0,5
Comments	

**Content of classes** (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)

**Lectures**

1. Adverse events of drugs, with particular emphasis on the undesirable consequences of drug interactions important in medical practice. Pharmacovigilance.
2. Individualization of pharmacotherapy during pregnancy, lactation, in children and in elderly people.
3. Pharmacoeconomics aspects of treatment.

**Classes**

Not applicable

**Practical classes**

1. Optimization of pharmacotherapy based on genetic testing.
2. Pathopharmacokinetics. Drug dosage adjustment in kidney failure.
3. The influence of environmental factors and circadian rhythm on the actions of drugs.
4. Effective and safe pharmacotherapy of pain.
5. Rational antibiotic therapy.
6. Therapeutic drug monitoring. Individualization of drug therapy.
7. The interpretation of the characteristics of pharmaceutical medicines and critical evaluation of promotional materials for the drug.
8. Conducting clinical trials in accordance with the principles of GCP. Ethical aspects of clinical trials of new drugs and placebo. Interpretation of clinical protocols I, II, III, IV trials. Planning a clinical trial.
9. EBM in pharmacotherapy.
10. Compliance with treatment recommendations.
11. Drug errors.

**Basic literature** (list according to importance, no more than 3 items)

1. Katzung B., Trevor A.: *Basic&Clinical Pharmacology*. Mc Graw Hill Education, 2017.
2. Müller M.: *Clinical pharmacology: current topics and case studies*. Springer International Publishing, 2016.
3. Brody T.: *Clinical Trials : Study Design, Endpoints and Biomarkers, Drug Safety, and FDA and ICH Guidelines*. Elsevier Science Publishing Co Inc, 2016.

**Additional literature and other materials** (no more than 3 items)

1. Altman R.B., Flockhart D., Goldstein D.B.: *Principles of pharmacogenetics and pharmacogenomics*. Cambridge University Press, 2012.
2. Brown M.J., Sharma P., Mir F.A., Bennett P.N.: *Clinical pharmacology*. Churchill Livingstone



Elsevier, 2018. 3. Murphy J. E.: Clinical Pharmacokinetics. American Society of Health-System Pharmacists, 2016.	
Didactic resources requirements (e.g. laboratory, multimedia projector, other...) seminar room, therapeutic drug monitoring laboratory, multimedia projector, computer	
Preliminary conditions (minimum requirements to be met by the student before starting the module/course) Pass the exam "Pharmacology and toxicology"	
Conditions to receive credit for the course (specify the form and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be met by the student to pass it and criteria for specific grades)  The basis for passing is attendance and to obtain a positive mark (at least 61%) from written test (5 open questions). Absence in class must be a bit in the form of presence on the same topic in another group, and if it is impossible - in the form of a presentation on the topic given by the teacher. Classes that did not take place due to, for example, the rector's day should be adjusted in detail in a manner agreed with the teacher (this may be a form of presentation or paper). Students prepares for passing on the basis of knowledge from lectures, classes, literature and self-study.	
<b>Grade:</b>	<b>Criteria</b> (only for courses/modules ending with an examination)
Very Good (5.0)	obtaining 96-100% of points on the exam
Good Plus (4.5)	obtaining 91-95% of points on the exam
Good (4.0)	obtaining 81-89% of points on the exam
Satisfactory Plus (3.5)	obtaining 71-80% of points on the exam
Satisfactory (3.0)	obtaining 61-70% of points on the exam

**Name and address of module/course teaching unit, contact: telephone and e-mail address**

Department of Clinical Pharmacology  
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**Coordinator / Person responsible for module/course, contact: telephone and e-mail address**

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**List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes.**

Anna Wiela-Hojeńska, prof. dr hab., clinical pharmacology, clinical pharmacy, academic teacher, MC

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Beata Sienkiewicz-Oleszkiewicz Msc, clinical pharmacy, academic teacher, MC

**Date of Syllabus development**

1.06.2019

**Syllabus developed by**

Prof. dr hab. Anna Wiela-Hojeńska

Dr Magdalena Hurkacz

**Signature of Head of teaching unit**

Signature of Faculty Dean

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