### **Course description**

#### Part 1

General information about the course		
1. Major of study: Pharmacy	2. Study level: long cycle master's studies	
	3. Form of study: full-time	
4. Year: V	5. Semester: IX	
6. Course name: Clinical Pharmacy I		
7 Course status: obligatory		

## 8. Course contents and assigned study effects

Mastering theoretical and practical issues in the field of cognitive services according to the highest standards of implementation and participation in the field of effective therapeutic decisions in the field of practice.

Learning effects/ reference to learning effects included in the standards

in range of knowledge, the student knows and understands: E.W1, E.W3, E.W6, E.W7, E.W8, E.W9, E.W10, E.W11, E.W12, E.W13, E. W14, E.W15, E.W19, E.W22, E.W23, E.W26

in terms of skills, the student is able to: E.U1, E.U2, E.U3, E.U4, E.U7, E.U10, E.U11, E.U12, E.U13, E.U14, E.U15, E.U17, E.U18, E.U23, E.U24, E.U25, E.U26, E.U27, E.U30, E.U31

in terms of social competences, the student is ready to: establish a relationship with the patient and colleagues based on mutual trust and respect; implementing the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment; compliance with the confidentiality of health, patient's rights and the principles of professional ethics; use of objective sources of information; formulating opinions on various aspects of professional activity; accepting responsibility related to decisions made in the course of professional activity, in terms of your own safety and that of others.

9. Number of hours for the course:			60			
10. Number of ECTS points for	4					
11. Ways of verification and assessment of learning effects						
Learn effects	Ways of verification	Ways of assessm	Ways of assessment			
In range of knowledge	Final grade - selection test	*				
In range of skills	Report Observation Observation	*				
In range of competences	Observation	*				

<sup>\*</sup> it is assumed that the rating means on the level:

**Very good (5,0)** - the assumed learning effects have been achieved and significantly exceed the required level

**Good plus (4,5)** - the assumed learning effects have been achieved and slightly exceed the required level **Good (4,0)** – the assumed learning effects have been achieved on the required level

Satisfactory plus (3,5) – the assumed learning effects have been achieved on the average required level Satisfactory (3,0) - the assumed learning effects have been achieved at the minimum required level Unsatisfactory (2,0) – the assumed learning effects not have been achieved

# **Course description**

# Part 2

Other useful information about the course				
12. Name of Departi				
	Departmen	nt of Community Pharmacy		
F	aculty of Pharm	naceutical Sciences in Sosnowiec		
	Medical Univ	versity of Silesia in Katowice		
	farmacja	a_apteczna@sum.edu.pl		
13. Name and surna	13. Name and surname of the person responsible for the completion of the course:			
professor Paweł Olczyk; e-mail: polczyk@sum.edu.pl				
14. Prerequisites for	knowledge, ski	ills and other competences:		
Student knows the ru	lles of observing	g professional secrecy and the protection of patie	nts'	
personal data, prese	nts an attitude	consistent with the principles of student ethics	and	
treats the hospital st	aff with respect	<del>.</del> .		
15. Number of stud	mber of students in the			
group				
		Computer, Computer AMMS Medical Application		
		devices for the preparation of medicaments w	ith	
16. Materials for the	e classes	demonstration vials, personal protection, Wor	k Computer,	
		UV lamp, Program List Program Programs pre	paration of	
		workshops for work in sterile conditions.		
	Department of Community Pharmacy,			
4= = 6.1		Faculty of Pharmaceutical Sciences in Sosnowiec ,		
17. Place of the clas	ses	Kasztanowa 3, 41-209 Sosnowiec, Clinical hospitals of		
		Medical Uniwersity of Silesia in Katowice		
		Department of Community Pharmacy,		
18. Place and time of consultation		Faculty of Pharmaceutical Sciences in Sosnowiec, Kasztanowa		
		3, 41-209 Sosnowiec, the hour of consultation	•	
		on the first exercises		
19. Learn effects				
			Reference to	
Lagradia a de Como			learning	
Learning outcome		Subject learning outcomes	outcomes	
number		-	included in	
			standards	
	Student knows	s the rules of organization and hospital	564.134143	
P_W01	medicines, the organization of war medicine and medical E.W1, E.W3,			
	work in medical treatment. Student got acquainted with the   E.W6, E.W7,			
	subject of hospital procedures.			
		rstands the importance of the characteristics of		
P W02	the medicinal product, microbiological and physicochemical E.W8, E.W11			
****		cal choice in optimizing pharmacotherapy.	L. VV O, L. VV II	
	stability, meal	car choice in optimizing pharmacotherapy.		

D W02	Student knows the role of pharmacist in clinical research.	E.W22,	
P_W03		E.W23	
	Actively monitors and reports undesirable effects of drugs,	E.W9, E.W10,	
	implements preventive measures, actively participates in the	E.W13,	
	work of the therapeutic team and cooperates with a doctor,	E.W14,	
	nurse and laboratory diagnostician to select the optimal	E.W15,	
	method of patient treatment.	E.W19,	
P_U01		E.W26	
	Student knows the principles of cooperation between		
	pharmacists and physicians, which are the basis of safe	E.U7, E.U23, E.U27,	
	pharmacotherapy, taking into account issues related to the		
	development of hospital formulas and therapeutic standards		
	in order to optimize pharmacotherapy.		
	Student knows safety rules for stored products in test tubes	E.U4, EU10,	
P_U02	in samples of these preparations and enteral nutrition.	E.U15, E.U16,	
		E.U31	

20. Forms and topics of classes	Number of hours
20.1. Lectures	15h
Statutory tasks of a hospital pharmacy and the role of a hospital pharmacist.	4h
Drug management in the hospital pharmacy practice	2h
Pharmacotherapy safety assessment, drugs side effects; side effects reporting	2h
Original and generic drugs, biological and biosimilar drugs in the interchangeable use	2h
The use of clinical trial results and promotional materials by pharmaceutical companies	2h
Pharmacoeconomics in the field of a hospital pharmacy	3h
20.2. Practice	
Discussion of the current state of hospital pharmacy using the examples of descriptions students of their internships in hospital pharmacies	2h
State and commercial drug, medical and scientific information services providing the basis for effective participation in the identification, tracking and solving of therapeutic problems - clinical case studies	2h
Acting as an advisor in the field of the use of drugs and medical devices, cooperation with doctors, nurses and administration in order to optimize pharmacotherapy in terms of its therapeutic effectiveness and economic justification	3h
Interpersonal communication in the practice of a hospital pharmacy	2h
Legal aspects of the functioning of a hospital pharmacy	2h
Malnutrition as a clinical problem	2h
Automatic drug distribution systems "unit dose"	2h

### 21. Readings

- 1. ACT of September 6, 2001 Pharmaceutical Law. Journal of Laws 2019.499;
- 2. The Act of July 29, 2005 on Counteracting Drug Addiction. Journal of Laws 2019.852;
- 3. ACT of April 15, 2011 on medical activity. Journal of Laws 2018.2190;
- 4. REGULATION OF THE MINISTER OF HEALTH of 11 September 2006 on narcotic drugs, psychotropic substances, category 1 precursors and preparations, agents or substances. Journal of Laws 2015.1889;
- 5. REGULATION OF THE MINISTER OF HEALTH of 18 October 2002 on running a pharmacy, Journal of Laws 2002.187.1565;
- 6. REGULATION OF THE MINISTER OF HUNDRED of September 30, on the share of the premises 2002. Whatever, Journal of Laws 2002.171.1395;

- 7. REGULATION OF THE MINISTER OF HEALTH of 9 November 2015 on the requirements of Good Manufacturing Practice, Journal of Laws 2019.728;
- 8. ACT of May 10, 2018 on the protection of personal data. Journal of Laws 2019.1781;
- 9. REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of personal data and data protection 95/46 / EC;
- 10. ACT of December 14, 2012 on waste. Journal of Laws 2019.701;
- 11. REGULATION OF THE MINISTER OF HEALTH of 5 October 2017 on access to the procedure with radio stations, Journal of Laws 2017.1975;
- 12. Rokicki P. Recipe of cytostatics. Polish Pharmacist, 2017; 6: 1-5;
- 13. Chmal-Jagiełło K., Jankowiak-Gracz H., Bicz M., Korczowska E., Bochniarz M. Quality standards in oncology pharmacy of the Polish Pharmaceutical Society 4th edition, 2018;
- 14. Orzechowska-Juzwenko K. Clinical pharmacology, importance in medical practice, Górnicki Wydawnictwo Medyczne, 2012;
- 15. Cieślicka A., Gębka M., Rząca M., Kocka K., Pietraszek A, Bartoszek A., Charzyńska-Gula M. Health consequences of exposure to cytostatic drugs in the control group of medical work a nurse. Journal of Education, Health and Sport. 2016; 6 (9): 566-574.

### 22. Detail evaluation criteria

In accordance with the recommendations of the inspection bodies

Completion of the course – student has achieved the assumed learning outcomes

Detail criteria for completion and evaluation of the course are specified in the course regulations