



# SOFIA UNIVERSITY "ST. KLIMENT OHRIDSKI"

FACULTY OF CHEMISTRY AND PHARMACY

## CURRICULUM

Signed by: .....



Approved by the Academic Council,  
Record of Proceedings № .....

11.1.22 10:11 2020 г.

Professional Field: **7.3. Pharmacy**

Educational and Qualification Degree: **Master of Science**

Subject Area:

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(code, name)

Pharmacy

Form of Study: full-time

Length of Study: 10 semesters

Professional Qualification: **MASTER OF PHARMACY**

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CHL382420

**M. Sc. Program "Pharmacy"**  
for the academic year beginning in 2020

№	Course code	Course Title	Type – C, E, O	Semester	ECTS credits	Number of hours- total				Number of hours per week	Type of grading* - e, ca, m, a
						Total	Lectures	Seminars	Practical classes / practice		
1	2	3	4	5	6	7	8	9	10	11	12

**Core courses**

1	C 0 1 6	Mathematics (Calculus)	C	1	6	180	30	0	45	2/0/3	e
2	C 0 2 5	Biology	C	1	5	150	30	0	30	2/0/2	e
3	C 0 3 6	General and Inorganic Chemistry 1	C	1	6	180	30	0	45	2/0/3	e
4	C 0 4 5	Latin	C	1	5	150	30	30	0	2/2/0	e
5	C 0 5 4	English	C	1	4	120	0	60	0	0/4/0	e
6	C 0 6 2	Sport	C	1	-	30	0	0	30	0/0/2	a
7	C 0 7 4	Human Anatomy	C	1	4	120	30	0	15	2/0/1	e
8	C 0 8 5	General and Inorganic Chemistry 2	C	2	5	150	30	0	30	2/0/2	e
9	C 0 9 6	Physics and Biophysics	C	2	6	180	45	0	45	3/0/3	e
10	C 1 0 5	Anatomical Pathology	C	2	5	150	30	0	30	2/0/2	e
11	C 1 1 9	Microbiology and Virology	C	2	9	270	60	0	60	4/0/4	e
12	C 1 2 3	History of Pharmacy	C	2	3	90	30	0	0	2/0/0	ca
13	C 0 6 2	Sport	C	2	2	60	0	0	30	0/0/2	ca
14	C 1 4 7	Human Physiology	C	3	7	210	45	0	45	3/0/3	e
15	C 1 5 7	Analytical Chemistry 1	C	3	7	210	30	0	60	2/0/4	e
16	C 1 6 4	Physical Chemistry with Colloid Chemistry 1	C	3	4	120	30	0	30	2/0/2	e
17	C 1 7 7	Organic Chemistry 1	C	3	7	210	45	0	45	3/0/3	e
18	C 1 8 5	Information Technology and Statistics	C	3	5	150	30	0	30	2/0/2	e
19	C 0 6 2	Sport	C	3	-	30	0	0	30	0/0/2	a
20	C 2 0 6	Analytical Chemistry 2	C	4	6	180	30	0	60	2/0/4	e
21	C 2 1 4	Physical Chemistry with Colloid Chemistry 2	C	4	4	120	30	0	30	2/0/2	e

Type of grading:  
e-exam, ca-current assessment,  
m-matriculation,  
a-advances to the next semester

*The Faculty Council has decided that min. 50% of the total education load is independent study of the students*

22	C	2	2	6	Organic Chemistry 2	C	4	6	180	45	0	45	3/0/3	e
23	C	2	3	6	Pharmaceutical Botany	C	4	6	180	45	0	45	3/0/3	e
24	C	2	4	4	Pathophysiology	C	4	4	120	30	0	30	2/0/2	e
25	C	0	6	2	Sport	C	4	2	60	0	0	30	0/0/2	ca
26	C	2	6	0	Pharmacognosy 1	C	5	10	300	60	0	90	4/0/6	e
27	C	2	7	7	Pharmaceutical Chemistry 1	C	5	7	210	45	0	60	3/0/4	e
28	C	2	8	7	Biochemistry	C	5	7	210	45	30	30	3/2/2	e
29	C	2	9	4	Pharmacogenetics	C	5	4	120	30	0	30	2/0/2	e
30	C	3	0	3	Hygiene and Ecology	C	5	3	90	30	0	15	2/0/1	e
31	C	3	1	8	Pharmacognosy 2	C	6	8	240	45	0	75	3/0/5	e
32	C	3	2	7	Pharmaceutical Chemistry 2	C	6	7	210	45	0	60	3/0/4	e
33	C	3	3	0	Pharmaceutical Technology 1	C	6	10	300	60	0	90	4/0/6	e
34	C	3	4	6	Pharmacology 1	C	6	6	180	45	0	45	3/0/3	e
35	C	3	5	0	Pharmaceutical Technology 2	C	7	10	300	60	0	90	4/0/6	e
36	C	3	6	7	Pharmacology 2	C	7	7	210	45	0	60	3/0/4	e
37	C	3	7	7	Pharmaceutical Analysis 1	C	7	7	210	45	0	60	3/0/4	e
38	C	3	8	4	Clinical Chemistry	C	7	4	120	30	0	30	2/0/2	e
39	E	3	9	4	Elective course 1	E	7	4	120	30	0	30	2/0/2	e
40	C	4	0	8	Pharmaceutical Technology 3	C	8	8	240	45	0	75	3/0/5	e
41	C	4	1	8	Pharmaceutical Analysis 2	C	8	8	240	45	0	75	3/0/5	e
42	C	4	2	5	Social Pharmacy and Pharmaceutical Law 1	C	8	5	150	30	15	30	2/1/2	ca
43	C	4	3	6	Toxicology	C	8	6	180	45	0	45	3/0/3	e
44	C	4	4	5	Pharmacotherapy 1	C	8	5	150	45	0	30	3/0/2	e
45	C	4	5	8	Biopharmaceutics and Pharmacokinetics	C	9	8	240	45	0	60	3/0/4	e
46	C	4	6	6	Pharmacotherapy 2	C	9	6	180	45	0	30	3/0/2	e

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47	C	4	7	6	Social Pharmacy and Pharmaceutical Law 2	C	9	6	180	30	15	30	2/1/2	e
48	C	4	8	6	Pharmacoeconomics	C	9	6	180	30	30	0	2/2/0	e
49	C	4	9	6	Pharmaceutical Care	C	9	6	180	30	30	0	2/2/0	e
50	E	5	0	4	Elective course 2	E	9	4	120	30	0	30	2/0/2	e

**Elective courses** – courses with minimum of 8 ECTS (total) must be elected

1	E	0	1	4	Forensic Toxicology	E	7,9	4	120	30	0	30	2/0/2	e
2	E	0	2	4	Bioactive and Medico-pharmaceutical Polymers	E	7,9	4	120	30	0	30	2/0/2	e
3	E	0	3	4	Bioinorganic Chemistry	E	7,9	4	120	30	0	30	2/0/2	e
4	E	0	4	4	Bioorganic Chemistry	E	7,9	4	120	30	0	30	2/0/2	e
5	E	0	5	4	Biophysical Chemistry	E	7,9	4	120	30	0	30	2/0/2	e
6	E	0	6	4	Bromatology	E	7,9	4	120	30	0	30	2/0/2	e
7	E	0	7	4	Cosmetic Materials and Care	E	7,9	4	120	30	0	30	2/0/2	e
8	E	0	8	4	Coordination Compounds in Medicine	E	7,9	4	120	30	0	30	2/0/2	e
9	E	0	9	4	Molecular Modeling of Pharmacophores	E	7,9	4	120	30	0	30	2/0/2	e
10	E	1	0	4	Nanotechnologies in Pharmacy	E	7,9	4	120	30	0	30	2/0/2	e
11	E	1	1	4	Dispersions in foods	E	7,9	4	120	30	0	30	2/0/2	e
9	E	1	2	4	Presentation skills	E	7,9	4	120	30	0	30	2/0/2	e
10	E	1	3	4	Quality Management in Pharmacy	E	7,9	4	120	30	0	30	2/0/2	e
14	E	1	4	4	Chemistry of Natural Products	E	7,9	4	120	30	0	30	2/0/2	e
15	E	1	5	4	QSAR and Drug Design	E	7,9	4	120	30	0	30	2/0/2	e
16	E	1	6	4	Cosmetic products as disperse systems	E	7,9	4	120	30	0	30	2/0/2	e
17	E	1	7	4	Drug – delivery systems based on porous materials	E	7,9	4	120	30	0	30	2/0/2	e

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18	E	1	8	4	Organic Biolabels for Bioanalysis and Diagnostics	E	7,9	4	120	30	0	30	2/0/2	e
19	E	1	9	4	Processes and apparatus in Pharma and Biotech industries	E	7,9	4	120	30	0	30	2/0/2	e
20	E	2	0	4	Innovations and entrepreneurship in pharma-, bio-, and cosmetic technologies	E	7,9	4	120	30	0	30	2/0/2	e
21	E	2	1	4	Medical ethnobotany	E	7,9	4	120	30	0	30	2/0/2	e
22	E	2	2	4	Basics of dermatology	E	7,9	4	120	30	30	0	2/2/0	e
23	E	2	3	4	Clinical medicine for pharmacists - part 1	E	7,9	4	120	30	30	0	2/2/0	e

#### Optional courses

1	O	0	1	3	Introduction to University Chemistry	O	1	3	90	0	0	30	0/0/2	ca
2	O	0	2	3	Basic Mathematics	O	1	3	90	0	0	30	0/0/2	ca
3	O	0	3	3	Fundamentals of Pharmaceutics	O	2,4	3	90	30	15	0	2/1/0	ca
4	O	0	4	4	Optical and Electron Microscopy	O	3-9	4	120	30	0	30	2/0/2	e
5	O	0	5	3	Molecular Mechanics	O	3,5,7,9	3	90	30	0	30	2/0/1	e
6	O	0	6	5	Molecular Dynamics and Monte Carlo Simulations	O	6,8	5	150	45	0	30	3/0/2	e
7	O	0	7	4	Ab initio MO Calculations	O	6,8	4	120	30	0	30	2/0/2	e
8	O	0	8	5	Colloids and Dispersions in Medicine and Pharmacy	O	3,5,7,9	5	150	45	0	30	3/0/2	e
9	O	0	9	5	Biomembranes in Norm and Pathology	O	4,6,8	5	150	45	0	30	3/0/2	e
11	O	1	1	4	Immunochemistry	O	3-9	4	120	30	0	30	2/0/2	e
12	O	1	2	4	Radioactive Isotopes in Nuclear Medicine	O	5,7,9	4	120	30	0	30	2/0/2	e

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13	O	1	3	3	Anatomical terminology	O	4,6,8	3	90	30	15	0	2/1/0	e
14	O	1	4	4	Green Chemistry	O	4,6,8	4	120	30	0	30	2/0/2	e
15	O	1	5	4	Sport (two semesters)	O	5,6,7,8	4	120	0	0	60	0/0/2	ca
16	O	1	6	4	Business English	O	6,8	4	120	15	0	45	1/0/3	e
17	O	1	7	4	Bulgarian as a foreign language	O	1,2,3,4	4	120	0	60	0	0/4/0	e

Study Internships														
No	code				Internship	Type - C, E, O	Semester	ECTS credits	Days	Total hours	Training hours	Type of grading* - e, ca, m		
1	I	0	1	2	Study Internship in Botany	C	4	2	6	60	48	ca		
2	I	0	2	2	Study Internship in Pharmacognosy	C	6	2	6	60	48	ca		
3	I	0	3	2	Study Internship in Pharmaceutical Technology	C	8	2	5	60	40	ca		
4	I	0	4	0	Professional Internship	C	10	24	120	720	720	ca		

### Degree completion

Form of degree completion	ECTS credits	First state exam/ thesis defence session	Second state exam/ thesis defence session
State exam in Pharmaceutical Technology and Biopharmacy	15	September- November	January-March
State exam in Pharmacognosy, Pharmacology, and Toxicology			
State exam in Pharmaceutical Chemistry and Pharmaceutical Analysis			
State exam in Social Pharmacy and Pharmaceutical Law			

The curriculum has been approved by the Faculty Council, Record of Proceedings № 28/June 09, 2020

DEAN:.....

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