

**CURRICULUM – 1st year
2024-2025**

UNIVERSITY	GEORGE EMIL PALADE UNIVERSITY OF MEDICINE, PHARMACY, SCIENCE AND TECHNOLOGY OF TÂRGU MUREȘ	SPECIALISATION	MEDICINAL CHEMISTRY
FACULTY	FACULTY OF PHARMACY	TITLE	MEDICINAL CHEMIST
FIELD OF STUDY	CHEMISTRY	DURATION	3 YEARS
LEVEL OF REGULATION	GENERAL	ECTS	60+5 / YEAR - 180+5 / COMPLETION OF STUDIES

No.	Educational activities Subjects	Code/ Type of disciplines *	1 st Semester								2 nd Semester								Total per academic year			
			1 st Module (7 weeks)				2 nd Module (7 weeks)				3 rd Module (7 weeks)				4 th Module (7 weeks)				Lect.	PA/ Sem.	Indiv. study	ECTS
			Lect.	PA/ Sem.	ECTS	Type of Assess- ment	Lect.	PA/ Sem.	ECTS	Type of Assess- ment	Lect.	PA/ Sem.	ECTS	Type of Assess- ment	Lect.	PA/ Sem.	ECTS	Type of Assess ment				
1.	General Chemistry	CHM101/ FS	4	4	6	E	-	-	-	-	-	-	-	-	-	-	-	-	28	28	94	6
2.	General Physics	CHM102/ CS	4	4	4	V	-	-	-	-	-	-	-	-	-	-	-	-	28	28	44	4
3.	Mathematics and Informatics	CHM103/ CS	6	4	5	V	-	-	-	-	-	-	-	-	-	-	-	-	42	28	55	5
4.	Inorganic Chemistry	CHM104/ FS	-	-	-	-	4	4	6	E	-	-	-	-	-	-	-	-	28	28	94	6
5.	Structure and Properties of Molecules	CHM105/ FS	-	-	-	-	4	4	4	E	-	-	-	-	-	-	-	-	28	28	44	4
6.	Fundamentals of Organic Chemistry	CHM106/ FS	-	-	-	-	4	2	3	V	-	-	-	-	-	-	-	-	28	14	33	3
7.	Organic Chemistry I - Compounds with Simple Functions	CHM107/ FS	-	-	-	-	-	-	-	-	4	4	6	E	-	-	-	-	28	28	94	6
8.	Thermodynamics and Electrochemistry	CHM108/ FS	-	-	-	-	-	-	-	-	4	4	5	E	-	-	-	-	28	28	69	5
9.	Chemical Kinetics	CHM109/ FS	-	-	-	-	-	-	-	-	4	4	4	E	-	-	-	-	28	28	44	4
10.	Organic Chemistry II - Multifunctional and Heterocyclic Organic Compounds	CHM110/ FS	-	-	-	-	-	-	-	-	-	-	-	-	4	4	6	E	28	28	94	6
11.	Qualitative Analytical Chemistry	CHM111/ FS	-	-	-	-	-	-	-	-	-	-	-	-	4	4	6	E	28	28	94	6
12.	Physical Education	CHM112/ CS	-	4	2	-	-	-	-	-	-	-	-	-	-	4	3	V	-	56	69	5
13.	Foreign Language	CHM113/ CS	-	-	-	-	-	-/4	2	-	-	-/4	3	V	-	-	-	-	-	-/56	69	5
14.	Facultative subject **	-	-	-	-	-	-	-	-	-	2	2	2	V	-	-	-	-	14	14	22	2
GRAND TOTAL			14	16	15+2+0	1E; 2V	12	10/4	15+0+0	2E; 1V	14	14/4	18+0+2	3E; 2V	8	12	12+3+0	2E; 1V	336	364/56	919	60+5+2
TOTAL HOURS/CREDITS			28 hours/ week; 30+2+0 ECTS								26 hours/ week; 30+3+2 ECTS								756			
** Advanced Digital Skills		CHM114/ CS																				

Ratio theory / practical activity – 1 : 1,25

***FS**– fundamental subject; **SS** – specialty subject; **DS** – domain subject; **CS** – complementary subject - **9 FS + 5 CS = 14**

E – exam; **V** – verification; **Lect.** – lecture; **PA** – practical activities; **Sem.** – seminar; **Indiv. study** – individual study; **ECTS** – European Credits Transferable System

RECTOR,
Prof. Leonard Azamfirei, MD, PhD

VICERECTOR,
Prof. Anca Negovan, MD, PhD

DEAN,
Prof. Daniela-Lucia Muntean, PharmD

CHIEF SECRETARY,
Ec. Simona Birîș

CURRICULUM – 2nd year
2024-2025

UNIVERSITY	GEORGE EMIL PALADE UNIVERSITY OF MEDICINE, PHARMACY, SCIENCE AND TECHNOLOGY OF TÂRGU MUREŞ	SPECIALISATION	MEDICINAL CHEMISTRY
FACULTY	FACULTY OF PHARMACY	TITLE	MEDICINAL CHEMIST
FIELD OF STUDY	CHEMISTRY	DURATION	3 YEARS
LEVEL OF REGULATION	GENERAL	ECTS	60/ YEAR - 180+5 / COMPLETION OF STUDIES

No	Educational activities Subjects	Code/ Type of disciplines *	1 st Semester								2 nd Semester								Total per academic year			
			1 st Module (7 weeks)				2 nd Module (7 weeks)				3 rd Module (7 weeks)				4 th Module (7 weeks)				Lect.	PA/ Sem.	Indiv. study	ECTS
			Lect.	PA/ Sem.	ECTS	Type of Assess- ment	Lect.	PA/ Sem.	ECTS	Type of Assess- ment	Lect.	PA/ Sem.	ECTS	Type of Assess- ment	Lect.	PA/ Sem.	ECTS	Type of Assess- ment				
1.	Physico-Chemical Bases of Chemical Technology	CHM201/ FS	4	4	6	E	-	-	-	-	-	-	-	-	-	-	-	-	28	28	94	6
2.	Human Anatomy and Physiology	CHM206/ SS	4	4	6	E	-	-	-	-	-	-	-	-	-	-	-	-	28	28	94	6
3.	Biochemistry	CHM203/ CS	-	-	-	-	6	4	7	E	-	-	-	-	-	-	-	-	42	28	105	7
4.	Quantitative Analytical Chemistry	CHM204/ FS	-	-	-	-	4	6	7	E	-	-	-	-	-	-	-	-	28	42	105	7
5.	Instrumental Analysis	CHM205/ FS	-	-	-	-	-	-	-	-	4	4	5	E	-	-	-	-	28	28	69	5
6.	Basics of Cell Biology	CHM202/ SS	-	-	-	-	-	-	-	-	4	4	5	E	-	-	-	-	28	28	69	5
7.	Drug Chemistry - Structure - Biological Activity Relationships	CHM207/ SS	-	-	-	-	-	-	-	-	-	-	-	-	6	6	7	E	42	42	91	7
8.	Pharmacology	CHM208/ SS	-	-	-	-	-	-	-	-	-	-	-	-	4	4	5	E	28	28	69	5
9.	Optional pack 1	CHM209.1/ SS	4	4	4	V	-	-	-	-	-	-	-	-	-	-	-	-	28	28	44	4
10.	Optional pack 2	CHM209.2/ SS	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	V	28	28	44	4
11.	Integrated Professional Practice (4 weeks) 30 hours (6 hours x 5 days)/week	CHM 210/ SS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	V	-	120	(20)	4
GRAND TOTAL			12	12	16	2E; 1V	10	10	14	2E; -V	8	8	10	2E; -V	14	14	20	2E; 2V	308	428	764	60
TOTAL HOURS/CREDITS			22 hours/ week; 30 ECTS								22 hours/ week.; 30 ECTS								736			

Optional pack 1 – Code: CHM209.1	Optional pack 2 – Code: CHM209.2
Microbiology – Code: CHM209.1.1	Analysis Laboratory Management – Code: CHM209.2.1
Biotechnology – Code: CHM209.1.2	Quality Assurance and Quality Control – Code: CHM209.2.2

Ratio theory / practical activity – 1 : 1 (calculated without specialized practice)

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**CURRICULUM – 3rd year
2024-2025**

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FACULTY	FACULTY OF PHARMACY	TITLE	MEDICINAL CHEMIST
FIELD OF STUDY	CHEMISTRY	DURATION	3 YEARS
LEVEL OF REGULATION	GENERAL	ECTS	60/ YEAR - 180+5 / COMPLETION OF STUDIES + 10 ECTS GRADUATION OF BACHELOR'S DEGREE EXAM

Nr. crt.	Educational activities Subjects	Code/ Type of disciplines *	1 st Semester								2 nd Semester								Total per academic year			
			1 st Module (7 weeks)				2 nd Module (7 weeks)				3 rd Module (7 weeks)				4 th Module (7 weeks)				Lect.	PA/ Sem.	Indiv. study	ECTS
			Lect.	PA/ Sem.	ECTS	Type of Assess- ment	Lect.	PA/ Sem.	ECTS	Type of Assess- ment	Lect.	PA/ Sem.	ECTS	Type of Assess- ment	Lect.	PA/ Sem.	ECTS	Type of Assess- ment				
1.	Methods of Analytical Separation	CHM301/ FS	6	6	7	E	-	-	-	-	-	-	-	-	-	-	-	-	42	42	91	7
2.	Clinical Biochemistry	CHM302/ SS	-	-	-	-	6	6	7	E	-	-	-	-	-	-	-	-	42	42	91	7
3.	Professional Ethics and Intellectual Property	CHM303/ CS	-	-	-	-	2	-/2	4	V	-	-	-	-	-	-	-	-	14	-/14	72	4
4.	Advanced Spectrometric Methods and Couplings of Analytical Methods	CHM304/ SS	-	-	-	-	-	-	-	-	6	6	6	E	-	-	-	-	42	42	66	6
5.	Natural Bioactive Compounds	CHM305/ SS	-	-	-	-	-	-	-	-	4	4	6	V	-	-	-	-	28	28	94	6
6.	Elaboration of Bachelor Thesis	CHM306/ SS	-	-	-	-	-	-	-	-	-	4	-	-	-	4	6	P	-	56	94	6
7.	Optional pack 1	CHM307.1/ SS	4	4	6	E	-	-	-	-	-	-	-	-	-	-	-	-	28	28	94	6
8.	Optional pack 2	CHM307.2/ SS	-	-	-	-	4	4	6	E	-	-	-	-	-	-	-	-	28	28	94	6
9.	Optional pack 3	CHM307.3/ SS	-	-	-	-	-	-	-	-	4	4	6	E	-	-	-	-	28	28	94	6
10.	Optional pack 4	CHM307.4/ SS	-	-	-	-	-	-	-	-	-	-	-	-	4	4	6	E	28	28	94	6
GRAND TOTAL			10	10	13	2E; -V	12	10/2	17	2E; 1V	14	18	18	2E; 1V	4	8	12	1E;-V;1P	280	322/14	884	60
TOTAL HOURS/CREDITS			22 hours/ week; 30 ECTS								22 hours/ week; 30 ECTS								616			

Optional pack 1 – Code: CHM307.1	Optional pack 2 – Code: CHM307.2	Optional pack 3 – Code: CHM307.3	Optional pack 4 – Code: CHM307.4
Pharmaceutical Technologies – Code: CHM307.1.1	Immunology and Immunochemistry – Code: CHM307.2.1	Analysis and Clinical Tests – Code: CHM307.3.1	Drugs Chemistry - Reactions and Synthesis – Code: CHM307.4.1
Drugs Development and Optimization – Code: CHM307.1.2	Molecular Genetics – Code: CHM307.2.2	Pharmacokinetics – Code: CHM307.3.2	Structural and Computational Medicinal Chemistry – Code: CHM307.4.2

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E – exam; **V** – verification; **Lect.** – lecture; **P** – project presentation; **PA** – practical activities; **Sem.** – seminar; **Indiv. study** – individual study; **ECTS** – European Credits Transferable System

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