

CURRICULUM

“A.I. CUZA” UNIVERSITY OF IASI
FACULTY OF CHEMISTRY

MASTER STUDIES: **CHIMIE**

SPECIALIZATION: **CHEMISTRY AND BIOCHEMISTRY OF HETEROCYCLES**

DURATION: 2 years

Structure of the academic year (in weeks)

	Didactic activities		Examinations		Holidays		
	I st sem.	II nd sem	I st sem.	I st sem.	Dec-Jan	Feb.	Summer
I st year	14	14	2	2	3	2	12
II nd year	14	14	2	2	3	2	-

The disciplines contained in the curriculum

Ist YEAR

No.	Course name	I st Semester				II nd Semester				Evaluation form	
		C	S	L	ECTS credits	C	S	L	ECTS credits		
1.	Advanced organic chemistry	2		2	6					E	
2.	Advanced inorganic chemistry	2	2		6					E	
3.	Advanced physical chemistry	2		2	6					E	
4.	Optional 1	2		2	6					E	
5.	Heterocyclic chemistry - practical abilities ¹	0,5		3,5	6	0,5		3,5	6	C	C
6.	Strategies in organic synthesis					2	2		6		E
7.	Alkaloids					2		2	6		E
8.	Dyes					2		2	6		E
9.	Optional 2					2		2	6		E
Hours per week / ECTS credits		8,5	2	9,5	30	8,5	4	7,5	30		
		20				20					

Elective courses

1.	Physical education			1	5			1	5	C	C
2.	Modern languages	1	1		5	1	1		5	C	C
Hours per week / ECTS credits		1	1	1	10	1	1	1	10		
		3				3					

IInd YEAR

No.	Course name	I st Semester				II nd Semester				Evaluation form	
		C	S	L	ECTS credits	C	S	L	ECTS credits		
1.	Management of scientific research	2	2		6					E	
2.	Special topics in heterocyclic chemistry	2		2	6					E	
3.	Synthesis and characterization of polypeptides	2		2	6					E	
4.	Optional 3	2		2	6					E	
5.	Fine organic synthesis ²	0,5		1,5	6	0,5		1,5	6	C	C
6.	Methods for investigation of reaction mechanisms					2	2		6		E
7.	Organic structural analysis					2		2	6		E
8.	Medicines of semisynthesis					2		2	6		E
9.	Optional 4					2		2	6		E
Hours per week / ECTS credits		8,5	2	7,5	30	8,5	2	7,5	30		
		18				18					

Optional courses

No.	Course name					Evaluation form
		Sem	C	L	ECTS credits	
1	<i>Heterocyclic compounds with biological activity</i>	1	2	2	6	E
	<i>Cristallochemistry</i>					
	<i>Chemical and biochemical sensors</i>					
2	<i>Biosynthesized drugs with heterocyclic structure</i>	2	2	2	6	E
	<i>Structural inorganic analysis</i>					
	<i>Phase transformations in atmosphere, hydrosphere and litosphere</i>					
3	<i>Molecular transpositions</i>	3	2	2	6	E
	<i>(Nano)porous inorganic structures</i>					
	<i>Chemometrics and analytical signal processing</i>					
4	<i>Natural compounds</i>	4	2	2	6	E
	<i>Catalysts and advanced catalytic processes/ clean</i>					
	<i>Kinetics of chain reactions</i>					

Elective courses within the Department of Didactic Personnel Training

No.	Name of the discipline				Hours per week					Evaluation form	ECTS credits
		Year	Sem	Weeks	C	A	C	A	Total		
1	<i>Psychopedagogy of teenagers and adults</i>			14	2	1	28	14	42	E	5
2	<i>Management of educational programs</i>			14	2	1	28	14	42	E	5
3	<i>Didactic of chemistry</i>			14	2	1	28	14	42	E	5
4	<i>Teaching practicum</i>			14	-	3	-	42	42	C	5
5	Optional package 1: - <i>Counselling and orientation</i> - <i>Educational communication</i> - <i>Methodology of educational research</i> - <i>Integrated education</i>	I	2	14	1	2	14	28	42	E	5
6	Optional package 2: - <i>Sociology of education</i> - <i>Management of scholar organization</i> - <i>Educational politics</i> - <i>Intercultural education</i> - <i>Contemporary pedagogical skills</i>	II	3	14	1	2	14	28	42	E	5
TOTAL – Level II		-	-	-	-	-	112	140	25 2	5E+ 1C	30
<i>Graduation examination: Level II</i>		II	4	2	-	-	-	-	-	E	5