

CURRICULUM

**“AI. I. CUZA” UNIVERSITY OF IASI
FACULTY OF CHEMISTRY**

MASTER STUDIES: CHIMIE

SPECIALIZATION: APPLIED COORDINATION CHEMISTRY

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 inorganic chemistry	2	2		6					E	
2.	Advanced organic chemistry	2		2	6					E	
3.	Advanced physical chemistry	2		2	6					E	
4.	Practicum (Laboratory techniques)	0,5		3,5	6					E	
5.	Optional 1	2		2	6					E	
6.	Special inorganic syntheses					2		2	6		E
7.	Chemistry of organometallic and bioorganometallic compounds					2	2		6		E
8.	Inorganic supramolecular chemistry					2	2		6		E
9.	Nanostructured inorganic compounds					2		2	6		E
10.	Optional 2					2	2		6		E
Hours per week / ECTS credits		8,5	2	9,5	30	10	8	2	30		
		20				20					

Elective courses

1.	<i>Physical education</i>			1	5			1	5	C	C
2.	<i>Modern languages</i>	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	Semestrul I				Semestrul II				Forma de verificare	
		C	S	L	Nr. credite	C	S	L	Nr. credite		
1.	Reactivity of coordination compounds	2	2		6					E	
2.	Coordination chemistry of f-block elements and superheavy elements	2	1	1	6					E	
3.	Inorganic compounds with special properties	2	2		6					E	
4.	Quantitative analysis of structural data - properties interdependence at coordination compounds	2	2		6					E	
5.	Optional 3	2	2		6					E	
6.	Advanced bioinorganic chemistry					2	2		6		E
7.	Elaboration of inorganic materials					2	2		6		E

8.	Radiochemical techniques in the investigation of coordination compounds					2		2	6		E
9.	Inorganic materials used for energy conversion					2	2		6		E
10.	Optional 4					2	2		6		E
Hours per week / ECTS credits		10	9	1	30	10	8	2	30		
		20				20					

Optional courses

No.	Course name	Sem				ECTS credits	Evaluation fom
			C	S	L		
1	<i>Cristallochemistry</i>	1	2	2		6	E
	<i>Heterocyclic compounds with biological activity</i>		2		2		
	<i>Chemical and biochemical sensors</i>		2		2		
2	<i>Inorganic structural analysis</i>	2	2	2		6	E
	<i>Biosynthesized drugs with heterocyclic structure</i>		2		2		
	<i>Phase transformations in atmosphere, hydrosphere and litosphere</i>		2		2		
3	<i>(Nano)porous inorganic structures</i>	3	2	2		6	E
	<i>Molecular transpositions</i>		2		2		
	<i>Environmetrics</i>		2		2		
4	<i>Catalysers and advanced catalytic processes/clean</i>	3	2	2		6	E
	<i>Utilisation of the organometallic compounds in organic synthesis</i>		2		2		
	<i>Kinetics of chain reactions</i>		2	1	1		

Elective courses within the Department of Didactic Personnel Training

N ^o	Name of the discipline				Hours per week					Evaluation form	ECTS credits
		Year	Sem	Weeks	C	A	C	A	Total		
1	<i>Psyhopedagogy 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	252	5E+1C	30
<i>Graduation examination: Level II</i>		II	4	2	-	-	-	-	-	E	5