

UNIVERSITY OF NAPLES FEDERICO II

OUTLINE OF THE STUDY PROGRAMME MASTER DEGREE IN CHEMISTRY

Exam	Course unit	Credits (ECTS)	Compulsory (C) or Semi- optional (S) or Elective (E)
First Year			
<i>I Semester</i>			
Advanced Organic Chemistry	Advanced Organic Chemistry (A)	5	C
	Advanced Organic Chemistry (B)	5	C
Coordination Compound Chemistry	Coordination Compound Chemistry (A)	5	C
	Coordination Compound Chemistry (B)	5	C
<i>II Semester</i>			
Advanced Analytical Chemistry	Advanced Analytical Chemistry (A)	5	C
	Advanced Analytical Chemistry (B)	5	C
Topics in Physical Chemistry	Topics in Physical Chemistry (A)	5	C
	Topics in Physical Chemistry (B)	5	C
Structure and Function of Proteins and Nucleic Acids	Structure and Function of Proteins and Nucleic Acids (A)	5	C
	Structure and Function of Proteins and Nucleic Acids (B)	5	C
<i>I/II Semester</i>			
Semi-optional Course ^a (Tab. A)		6	S
Elective Course ^b (Tab. B)		6	E
TOTAL CREDITS I YEAR		62	
Second Year			
<i>I/II Semester</i>			
Semi-optional Course ^a (Tab. A)		6	S
Semi-optional Course ^a (Tab. A)		6	S
Elective Courses ^b (Tab. B)		6	E
Technical Training ^c		5	
Master Thesis Preparation	Data processing and ICT skills	3	3
	Literature search, experimental research	31	
Master Thesis Final Discussion		1	
TOTAL CREDITS II YEAR		58	

^aSemi-optional courses must be chosen among those regularly activated every year and listed in Table A.

^bElective courses can be freely chosen among those activated by the whole University of Naples Federico II. However, since 2016 the study programme activates courses (6 CFU each), listed in Table B, to give students the possibility to acquire in-depth knowledge in chemistry and interdisciplinary areas.

^cTechnical training activities can be carried out in both laboratories of University Federico II and in public/private research centers.

Table A. Semi-optional courses

<i>Exam</i>	<i>Credits (ECTS)</i>	<i>Semester</i>
Analytical forensic chemistry	6	I
Physical chemistry of colloids and interfaces	6	II
Spectroscopy of biomolecules	6	I
Computational chemistry	6	II
Bioinorganic chemistry	6	II
Organo-metallic compounds chemistry	6	II
Chemistry and Technology of Catalysis	6	II
Organic Analysis	6	II
Chemistry of natural organic substances	6	II
Asymmetric synthesis	6	I
Biomolecular methodologies	6	I
Biochemistry laboratory	6	I
Structural and functional proteomics	6	II
Industrial chemistry products and processes	6	II

Table B. Elective courses

<i>Exam</i>	<i>Credits (ECTS)</i>	<i>Semester</i>
Biocrystallography	6	II
Chemistry of heterocyclic compounds of biological interest	6	I
Radiochemistry	6	II
Material chemistry and physics	6	I
Environmental organic chemistry	6	I
Protein and metalloprotein design	6	II
Glycomic	6	I
Laboratory of catalysis	6	II
Bioinorganic chemistry laboratory	6	II
Special methods in organic synthesis	6	I
Photochemical and radical processes in organic chemistry	6	II
Mass spectrometry in organic chemistry	6	I
Biomolecular NMR spectroscopy	6	I