



## Master program of Analytical Chemistry

### First Level

COURSE	TITLE	LT	LB	CR
CHEM 650	<b>Advance Analytical Chemistry (1)</b> Colorimetry, Spectrometry, Classical Chromatography and Statistical Analysis	3	0	3
CHEM 630	<b>Advance Physical Chemistry (1)</b> Electrochemistry , Chemical Kinetics and Surface Chemistry	3	0	3
CHEM 620	<b>Advanced Inorganic Chemistry</b> Coordination Chemistry and Mechanisms of Inorganic Reactions	3	0	3
Total				8

### Second Level

COURSE	TITLE	LT	LB	CR
CHEM 651	<b>Electrochemical Methods of Analysis</b>	3	0	3
CHEM 652	<b>Advanced Chromatography</b>	3	0	3
Elective Subject		2	0	2
CHEM 653	Environmental Chemistry			
CHEM 654	Pharmaceutical and Clinical Analysis	-	-	-
CHEM 655	Food and Water Analysis			
Total				9



## Master program of Analytical Chemistry

### Third Level

COURSE	TITLE	LT	LB	CR
CHEM656	<b>Spectrometric Methods</b>	2	0	2
CHEM680	<b>Research Skills</b>	3	0	3
Elective Subject		2	0	2
CHEM657 CHEM658	Applied Analytical Chemistry Advanced Techniques and Nanotechnology	-	-	-
Total				8

### Fourth Level

COURSE	TITLE	LT	LB	CR
CHEM699	<b>Thesis</b>	-	8	8
Total				8



## Master program of Inorganic Chemistry

### First Level

COURSE	TITLE	LT	LB	CR
CHEM 620	<b>Advanced Inorganic Chemistry</b> Coordination chemistry and mechanisms of inorganic reactions	3	-	3
CHEM 640	<b>Advanced Organic Chemistry</b> Synthesis, Mechanism of Organic Reactions, and Photochemical Reactions	3	-	3
CHEM 650	<b>Advanced Analytical Chemistry (1)</b> Spectrometry, Classical chromatography, Colorimetry and statistical analysis	3	-	3
Total				9

### Second Level

COURSE	TITLE	LT	LB	CR
CHEM 621	<b>Crystallography.</b>	2	-	2
CHEM 622	<b>Transition metal chemistry and organometallic compounds</b>	3	-	3
CHEM 623	<b>Characterization methods for inorganic chemistry</b>	3	-	3
Total				8



## Master program of Inorganic Chemistry

### Third Level

COURSE	TITLE	LT	LB	CR
CHEM 624	Chemistry of Inorganic and Hybrid nanomaterials	2	-	2
CHEM 680	Research skills	3	-	3
Elective Subject		2	0	2
CHEM 625	Applied Inorganic Chemistry	-	-	-
CHEM 626	Bioinorganic Chemistry	-	-	-
Total				8

### Fourth Level

COURSE	TITLE	LT	LB	CR
CHEM 699	Thesis	-	8	8
Total				8



## Master program of Organic Chemistry

### First Level

COURSE	TITLE	LT	LB	CR
CHEM 630	<b>Advanced Physical Chemistry (1)</b> Electrochemistry and Chemical Kinetics, and Surface Chemistry.	3	0	3
CHEM 640	<b>Advanced Organic Chemistry (1)</b> Organic Synthesis, Mechanisms and Photochemical Reactions.	3	0	3
CHEM 650	<b>Advanced Analytical Chemistry (1)</b> Spectrometry, Classical Chromatography, Colorimetry and Statistical Analysis.	3	0	3
Total				9

### Second Level

COURSE	TITLE	LT	LB	CR
CHEM 641	<b>Advanced Stereochemistry</b>	2	0	2
CHEM 642	<b>Advanced Spectroscopy of organic compounds</b>	3	0	3
CHEM 643	<b>Advanced Natural products chemistry</b>	3	0	3
Total				8



## Master program of Organic Chemistry

### Third Level

COURSE	TITLE	LT	LB	CR
CHEM 644	<b>Advanced heterocyclic chemistry</b>	2	0	2
CHEM 680	<b>Research Skills.</b>	3	0	3
Elective Subject		2	0	2
CHEM 636	Chemistry of Dyes	-	-	-
CHEM 645	Advanced polymer chemistry	-	-	-
CHEM 646	Applied organic chemistry	-	-	-
Total				7

### Fourth Level

COURSE	TITLE	LT	LB	CR
CHEM699	<b>Thesis</b>	-	8	8
Total				8



## Master program of Physical Chemistry

### First Level

COURSE	TITLE	LT	LB	CR
CHEM 630	<b>Advanced Physical Chemistry (1)</b> Electrochemistry and Chemical Kinetics, and Surface Chemistry.	3	0	3
CHEM 640	<b>Advanced Organic Chemistry (1)</b> Organic Synthesis, Mechanisms and Photochemical Reactions.	3	0	3
CHEM 650	<b>Advanced Analytical Chemistry (1)</b> Spectrometry, Classical Chromatography, Colorimetry and Statistical Analysis.	3	0	3
Total				9

### Second Level

COURSE	TITLE	LT	LB	CR
CHEM 631	<b>Advanced Physical Chemistry (2)</b> Colloid Chemistry, Microemulsions, and Nanoemulsions	3	0	3
CHEM 632	<b>Advanced Physical Chemistry (3)</b> Statistical thermodynamics and Advanced Quantum Chemistry.	3	0	3
CHEM 633	<b>Ion Exchange and Adsorption.</b>	2	0	2
Total				9



## Master program of Physical Chemistry

### Third Level

COURSE	TITLE	LT	LB	CR
CHEM 634	<b>Advanced Physical Chemistry (4)</b> Advanced Photochemistry and radiation chemistry.	2	0	2
CHEM 680	<b>Research Skills.</b>	3	0	3
Elective Subject		2	0	2
CHEM 635	Nanochemistry	-	-	-
CHEM 636	Chemistry of Dyes	-	-	-
CHEM 637	Molecular Modelling	-	-	-
CHEM 638	Advanced Molecular Spectra	-	-	-
Total				8

### Fourth Level

COURSE	TITLE	LT	LB	CR
CHEM699	<b>Thesis</b>	-	8	8
Total				8