ULUDAĞ UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
2017-2018 ACADEMIC YEAR COURSE PLAN

DEPARTMENT OF	DEPARTMENT OF CHEMISTRY
DEPARTMENT / PROGRAM	MASTER'SDEGREE PROGRAM

COURSE STAGE

I. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
CHEM5001	SPECTROSCOPIC METHODS IN ANALYTICAL CHEMISTRY	Z	3	0	0	3	6
CHEM5003	ADVANCED INORGANIC CHEMISTRY	Z	3	0	0	3	6
CHEM5025	ADVANCED BIOCHEMISTRY	Z	3	0	0	3	6
CHEM5191	MA THESIS I	Z	0	1	0	0	1
CHEM5181	ADVANCED TOPICS IN MA THESIS I	S	4	0	0	0	5
CHEM5005	ADVANCEDANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM5007	SAMPLE PREPARATIONMETHODSIN ANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM5009	INTRODUCTION TOCHEMOMETRICS	S	3	0	0	3	6
CHEM5011	POTENTIOMETRY IN ANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM5013	SPECTROSCOPIC METHODS IN INORGANIC CHEMISTRY	S	3	0	0	3	6
CHEM5015	THERMALANALYSIS METHODS	S	3	0	0	3	6
CHEM5017	INDUSTRIAL INORGANIC CHEMISTRY	S	3	0	0	3	6
CHEM5019	ACIDS, BASES AND SOLVENTS	S	3	0	0	3	6
CHEM5021	SMART POLYMERS	S	3	0	0	3	6
CHEM5023	POROUS MATERIALS	S	3	0	0	3	6
CHEM5027	PHYSIOCHEMICAL TREATMENTTECHNIQUESWASTEWATER	S	3	0	0	3	6
CHEM5029	SEPERATION AND PURIFICATION	S	3	0	0	3	6

II. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
CHEM5172	SEMINAR	Z	0	2	0	0	4
CHEM5002	PHYSICAL CHEMISTRY OF ATOM AND MOLECULAR SYSTEMS	Z	3	0	0	3	6
CHEM5004	ADVANCED ORGANIC CHEMISTRY	Z	3	0	0	3	6
CHEM5000	RESEARCH TECHNIQUES and PUBLICATION ETHICS in CHEMISTRY	C	2	0	0	2	2
CHEM5192	MA THESIS II	Z	0	1	0	0	1
CHEM5182	ADVANCED TOPICS IN MA THESIS II	S	4	0	0	0	5
CHEM5006	CHROMATOGRAPHIC METHODSIN ANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM5008	MASS SPECTROMETRIC METHODS	S	3	0	0	3	6
CHEM5010	INTRODUCTION TO ATOMIC SPECTROSCOPY	S	3	0	0	3	6
CHEM5012	NUCLEARANALYTICALTECHNIQUES	S	3	0	0	3	6
CHEM5014	SELECTED TOPICS INCOORDINATION CHEMISTRY	S	3	0	0	3	6
CHEM5016	CYCLICVOLTAMMETRY	S	3	0	0	3	6
CHEM5018	RESEARCH METHODSIN INORGANIC CHEMISTRY	S	3	0	0	3	6
CHEM5020	CHEMISTRY OF COORDINATION COMPOUNDS IN SOLUTIONS	S	3	0	0	3	6
CHEM5022	CHEMISTRY OFELEMENTS	S	3	0	0	3	6
CHEM5024	OXIDATIONANDREDUCTIONREACTIONSIN INORGANIC CHEMISTRY	S	3	0	0	3	6
CHEM5026	ADVANCED ANALYSIS TECHNIQUES OF BIOMOLECULES	S	3	0	0	3	6
CHEM5028	ELECTRONIC TEORIES IN ORGANIC	S	3	0	0	3	6

		TECHNIQUES IN ORGANIC CHEMISTRY								CHEMISTRY							
	CHEM5031	SEPARATION METHODS INANALYTICAL CHEMISTRY	S	3	0	0	3	6	CHEM5030	ION-EXCHANGERS AND THEIR PHYSICAL CHEMISTRY	S	3	0	0	3	6
	CHEM5033	ADSORPTION METHODSIN ANALYTICAL CHEMISTRY	S	3	0	0	3	6	CHEM5032	SYNTHETIC SPECIALTY POLYMERS	S	3	0	0	3	6
	CHEM5035	ANALYSIS METHODS FOR WEAK ENERGY BONDS	S	3	0	0	3	6	CHEM5034	HETEROGENEOUS CATALYSIS	S	3	0	0	3	6
	CHEM5037	MOLECULAR IMPRINTED POLYMERS AND NANOBIOTECHNOLOGICAL APPLICATIONS	S	3	0	0	3	6	CHEM5036	INTRODUCTION TO NANOTECHNOLOGY	S	3	0	0	3	6
	CHEM5039	GREEN ORGANIC SYNTHESIS REACTIONS	S	3	0	0	3	6	CHEM5038	ORGANIC REACTIONS KNOWN WITH SPECIAL NAMES	S	3	0	0	3	6
	CHEM5041	DNA,RNA and PROTEIN SYNTHESIS METABOLISM	S	3	0	0	3	6	CHEM5040	ELECTROANALYTICAL CHEMISTRY	S	3	0	0	3	6
									CHEM5042	TRANSPORT and BIOSIGNALING in BIOLOGICAL MEMBRANES	S	3	0	0	3	6
									CHEM5044	BIOSYNTHESIS	S	3	0	0	3	6
									CHEM5046	HORMONAL REGULATION of METABOLISM	S	3	0	0	3	6
		Total Credits					**12**	**30**		**Total Credits**					**11**	**30**	
	III. TERM / FALL								**IV. TERM / SPRING**								
STAGE THESIS	CHEM5183	ADVANCED TOPICS IN MA THESIS III	Z	4	0	0	0	5	CHEM5184	ADVANCED TOPICS IN MA THESIS IV	Z	4	0	0	0	5
	CHEM5193	MA THESIS III	Z	0	1	0	0	25	CHEM5194	MA THESIS IV	Z	0	1	0	0	25
		Total Credits					**0**	**30**		**Total Credits**					**0**	**30**	

TOTAL CREDITS: 23 - TOTAL ECTS: 120

Not: After the student receives compulsory course of registered discipline, 3 credits of elective courses will take 2 or 3 pieces
Studentsmay takecompulsory courses of other disciplines as an elective
If the student wants to may choose one selective course from another department with the endorsement of the supervisor

ULUDAĞ UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
2017-2018 ACADEMIC YEAR COURSE PLAN

DEPARTMENT OF	DEPARTMENT OF CHEMISTRY
DEPARTMENT / PROGRAM	DOCTORAL PROGRAM

COURSE STAGE

I. TERM / FALL								II. TERM / SPRING							
Code	**Course Title**	**Type**	**T**	**U**	**L**	**Credit**	**ECTS**	**Code**	**Course Title**	**Type**	**T**	**U**	**L**	**Credit**	**ECTS**
CHEM 6191	PHD THESIS I	Z	0	1	0	0	1	CHEM6172	SEMINAR	Z	0	2	0	0	4
								CHEM 6192	PHD THESIS II	Z	0	1	0	0	1
								FEN6000	RESEARCH TECHNIQUES and PUBLICATION ETHICS	C	2	0	0	2	2
CHEM6181	ADVANCED TOPICS IN PHD THESIS I	S	4	0	0	0	5	CHEM6182	ADVANCED TOPİCS IN PHD THESIS II	S	4	0	0	0	5
CHEM6003	PRACTICES OF GROUP THEORY IN MOLECULAR SPECTROSCOPY	S	3	0	0	3	6	CHEM6002	FACTOR ANALYSISIN CHEMISTRY	S	3	0	0	3	6
CHEM6005	DESIGN OF MOLECULE IN ORGANIC	S	3	0	0	3	6	CHEM6004	MICROMETHODSIN ANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM6007	LIQUID CHROMATOGRAPHY	S	3	0	0	3	6	CHEM6006	COUPLED METHODS IN CHROMATOGRAPHY	S	3	0	0	3	6
CHEM6009	ACTIVATED CARBON ADSORPTION AND APPLICATIONS	S	3	0	0	3	6	CHEM6008	CHEMOMETRIC METHODS	S	3	0	0	3	6
CHEM6011	ANALYTICAL TECHNIQUES IN VOLTAMMETRY	S	3	0	0	3	6	CHEM6010	BIOANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM6013	ANALYTICAL CHEMISTRY OF COMPLEX MATRICES	S	3	0	0	3	6	CHEM6012	ASYMMETRIC SYNTHESIS IN ORGANIC CHEMİSTRY	S	3	0	0	3	6
CHEM6015	ATOMIC SPECTROSCOPIC METHODS	S	3	0	0	3	6	CHEM6014	NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY IN ORGANIC STRUCTURE IDENTIFICATION	S	3	0	0	3	6
CHEM6017	MECHANISMS OF MOLECULAR REARRANGEMENTS I	S	3	0	0	3	6	CHEM6016	INTERFACESCIENCE II	S	3	0	0	3	6
CHEM6019	PRINCIPLES OF ORGANIC SYNTHESIS I	S	3	0	0	3	6	CHEM6018	SOLID STATE CHEMISTRY	S	3	0	0	3	6
CHEM6021	CATALYSIS	S	3	0	0	3	6	CHEM6020	ELECTROCHEMICALSENSORS	S	3	0	0	3	6
CHEM6023	CRYSTAL CHEMISTRY	S	3	0	0	3	6	CHEM6022	ADVANCED MATERIAL CHEMISTRY	S	3	0	0	3	6
CHEM6025	NATURAL ANTIOXIDANTS	S	3	0	0	3	6								6
CHEM6027	MOLECULAR SYMMETRYAND APPLICATIONS	S	3	0	0	3	6	CHEM6024	ADVANCEDBIOINORGANIC CHEMISTRY	S	3	0	0	3	6
CHEM6029	BORON CHEMISTRY	S	3	0	0	3	6	CHEM6026	REACTION MECHANISMSIN INORGANIC	S	3	0	0	3	6
CHEM6031	ADVANCED ORGANOMETALIC	S	3	0	0	3	6	CHEM6028	MOLECULAR RECOGNITION AND	S	3	0	0	3	6

	CHEMISTRY								BIOMOLECULE COMPLEXES								
	CHEM6035	ION-EXCHANGERS AND THEIR APPLICATIONS	S	3	0	0	3	6	CHEM6030	FRACTIONATION AND SPECIATION METHODS IN FOOD SAMPLES	S	3	0	0	3	6
	CHEM6037	PROTEIN PURIFICATION AND CHARACTERIZATION	S	3	0	0	3	6	CHEM6032	INORGANIC POLYMERS	S	3	0	0	3	6
	CHEM6039	INTERFACESCIENCE I	S	3	0	0	3	6	CHEM 6034	X-RAY CRYSTALLOGRAPHY	S	3	0	0	3	6
	CHEM6041	ADVANCEDPOLYMER SCIENCEAND TECHNOLOGYI	S	3	0	0	3	6	CHEM6036	POLYMER KINETIC THEORIES	S	3	0	0	3	6
	CHEM6043	OXIDATION MECHANISMS IN ORGANIC CHEMISTRY	S	3	0	0	3	6	CHEM6038	ADVANCEDPOLYMER SCIENCEAND TECHNOLOGY II	S	3	0	0	3	6
	CHEM6045	QUALITY CONTROL IN ANALYTICAL CHEMISTRY	S	3	0	0	3	6	CHEM6040	MACROMOLECULAR CHEMISTRY	S	3	0	0	3	6
	CHEM6047	ADVANCED COORDINATION CHEMISTRY	S	3	0	0	3	6	CHEM6042	STRUCTURE IDENTIFICATION IN ORGANIC CHEMISTRY	S	3	0	0	3	6
	CHEM6049	OPTICAL AND CHEMICAL SENSORS	S	3	0	0	3	6	CHEM6044	MECHANISMS OF MOLECULAR REARRANGEMENTS II	S	3	0	0	3	6
									CHEM6046	PRINCIPLES OF ORGANIC SYNTHESIS II	S	3	0	0	3	6
									CHEM6048	CORROSION AND ITS ELECTROCHEMICAL BASICS	S	3	0	0	3	6
									KIM6050	OLED TECHNOLOGY	S	3	0	0	3	6
		Total Credits					**12**	**30**		**Total Credits**					**11**	**30**
STAGE THESIS	**III. TERM / FALL**								**IV. TERM / SPRING**								
	CHEM6183	ADVANCED TOPICS IN PHD THESIS III	Z	4	0	0	0	5	CHEM6184	ADVANCED TOPICS IN PHD THESIS IV	Z	4	0	0	0	5
	CHEM6193	PHD THESIS III	Z	0	1	0	0	15	CHEM6194	PHD THESIS IV	Z	0	1	0	0	25
	CHEM 6177	PHD PROFICIENCY EXAMINATION	Z	0	0	0	0	10								
		Total Credits					**0**	**30**		**Total Credits**					**0**	**30**
	V. TERM / FALL								**VI. TERM / SPRING**								
	CHEM6185	ADVANCED TOPICS IN PHD THESIS V	Z	4	0	0	0	5	CHEM6186	ADVANCED TOPICS IN PHD THESIS VI	Z	4	0	0	0	5
	CHEM6195	PHD THESIS V	Z	0	1	0	0	25	CHEM6196	PHD THESIS VI	Z	0	1	0	0	25
		Total Credits					**0**	**30**		**Total Credits**					**0**	**30**
	VII. TERM / FALL								**VIII. TERM / SPRING**								
	CHEM6187	ADVANCED TOPICS IN PHD THESIS VII	Z	4	0	0	0	5	CHEM6188	ADVANCED TOPICS IN PHD THESIS VIII	Z	4	0	0	0	5
	CHEM6197	PHD THESIS VII	Z	0	1	0	0	25	CHEM6198	PHD THESIS VIII	Z	0	1	0	0	25
		Total Credits					**0**	**30**		**Total Credits**					**0**	**30**
TOTAL CREDITS: 23 - TOTAL ECTS: 240																	

Not: Thestudent is expectedtotake a total of **3**credited **4(four)**selectivecourseseveryacademic term.
Thestudent have the option of choosing one selective course from another department with the endorsement of the supervisor. *Success in Ph.D. qualifying exam is a prerequisite.

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2017-2018 ACADEMIC YEAR COURSE PLAN

DEPARTMENT OF	DEPARTMENT OF CHEMISTRY
DEPARTMENT / PROGRAM	CHEMISTRY/UNIFIED DOCTORAL PROGRAM

COURSE STAGE

I. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
CHEM5001	SPECTROSCOPIC METHODS IN ANALYTICAL CHEMISTRY	Z	3	0	0	3	6
CHEM5003	ADVANCED INORGANIC CHEMISTRY	Z	3	0	0	3	6
CHEM5025	ADVANCED BIOCHEMISTRY	Z	3	0	0	3	6
CHEM 6191	PHD THESIS I	Z	0	1	0	0	1
CHEM6181	ADVANCED TOPICS IN PHD THESIS I	S	4	0	0	0	5
CHEM5005	ADVANCEDANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM5007	SAMPLE PREPARATIONMETHODSIN ANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM5009	INTRODUCTION TOCHEMOMETRICS	S	3	0	0	3	6
CHEM5011	POTENTIOMETRY IN ANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM5013	SPECTROSCOPIC METHODS IN INORGANIC CHEMISTRY	S	3	0	0	3	6
CHEM5015	THERMALANALYSIS METHODS	S	3	0	0	3	6
CHEM5017	INDUSTRIAL INORGANIC CHEMISTRY	S	3	0	0	3	6
CHEM5019	ACIDS, BASES AND SOLVENTS	S	3	0	0	3	6
CHEM5021	SMART POLYMERS	S	3	0	0	3	6
CHEM5023	POROUS MATERIALS	S	3	0	0	3	6
CHEM5027	PHYSIOCHEMICAL TREATMENTTECHNIQUESWASTEWATER	S	3	0	0	3	6
CHEM5029	SEPERATION AND PURIFICATION TECHNIQUES IN ORGANIC CHEMISTRY	S	3	0	0	3	6
CHEM5031	SEPARATION METHODS INANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM5033	ADSORPTION METHODSIN	S	3	0	0	3	6

II. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
CHEM5002	PHYSICAL CHEMISTRY OF ATOM AND MOLECULAR SYSTEMS	Z	3	0	0	3	6
CHEM5004	ADVANCED ORGANIC CHEMISTRY	Z	3	0	0	3	6
CHEM 6192	PHD THESIS II	Z	0	1	0	0	1
CHEM6182	ADVANCED TOPİCS IN PHD THESIS II	S	4	0	0	0	5
CHEM5006	CHROMATOGRAPHIC METHODSIN ANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM5008	MASS SPECTROMETRIC METHODS	S	3	0	0	3	6
CHEM5010	INTRODUCTION TO ATOMIC SPECTROSCOPY	S	3	0	0	3	6
CHEM5012	NUCLEARANALYTICALTECHNIQUES	S	3	0	0	3	6
CHEM5014	SELECTED TOPICS INCOORDINATION CHEMISTRY	S	3	0	0	3	6
CHEM5016	CYCLICVOLTAMMETRY	S	3	0	0	3	6
CHEM5018	RESEARCH METHODSIN INORGANIC CHEMISTRY	S	3	0	0	3	6
CHEM5020	CHEMISTRY OF COORDINATION COMPOUNDS IN SOLUTIONS	S	3	0	0	3	6
CHEM5022	CHEMISTRY OFELEMENTS	S	3	0	0	3	6
CHEM5024	OXIDATIONANDREDUCTIONREACTIONSIN INORGANIC CHEMISTRY	S	3	0	0	3	6
CHEM5026	ADVANCED ANALYSIS TECHNIQUES OF BIOMOLECULES	S	3	0	0	3	6
CHEM5028	ELECTRONIC TEORIES IN ORGANIC CHEMISTRY	S	3	0	0	3	6
CHEM5030	ION-EXCHANGERS AND THEIR PHYSICAL CHEMISTRY	S	3	0	0	3	6
CHEM5032	SYNTHETIC SPECIALTY POLYMERS	S	3	0	0	3	6
CHEM5034	HETEROGENEOUS CATALYSIS	S	3	0	0	3	6

	ANALYTICAL CHEMISTRY																
CHEM5035	ANALYSIS METHODS FOR WEAK ENERGY BONDS	S	3	0	0	3	6	CHEM5036	INTRODUCTION TO NANOTECHNOLOGY	S	3	0	0	3	6
CHEM5037	MOLECULAR IMPRINTED POLYMERS AND NANOBIOTECHNOLOGICAL APPLICATIONS	S	3	0	0	3	6	CHEM5038	ORGANIC REACTIONS KNOWN WITH SPECIAL NAMES	S	3	0	0	3	6
CHEM5039	GREEN ORGANIC SYNTHESIS REACTIONS	S	3	0	0	3	6	CHEM5040	ELECTROANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM5041	DNA,RNA and PROTEIN SYNTHESIS METABOLISM	S	3	0	0	3	6	CHEM5042	TRANSPORT and BIOSIGNALING in BIOLOGICAL MEMBRANES	S	3	0	0	3	6
								CHEM5044	BIOSYNTHESIS	S	3	0	0	3	6
								CHEM5046	HORMONAL REGULATION of METABOLISM	S	3	0	0	3	6
		Total Credits				**12**	**30**			**Total Credits**				**12**	**30**

STAGE THESIS

III. TERM / FALL								**IV. TERM / SPRING**									
CHEM6193	PHD THESIS III	Z	0	1	0	0	1	CHEM6194	PHD THESIS IV	Z	0	1	0	0	1
								CHEM6172	SEMINAR	Z	0	2	0	0	4
								FEN6000	RESEARCH TECHNIQUES and PUBLICATION ETHICS	Z	2	0	0	2	2
CHEM6183	ADVANCED TOPICS IN PHD THESIS III	S	4	0	0	0	5	CHEM6184	ADVANCED TOPICS IN PHD THESIS IV	S	4	0	0	0	5
CHEM6003	PRACTICES OF GROUP THEORY IN MOLECULAR SPECTROSCOPY	S	3	0	0	3	6	CHEM6002	FACTOR ANALYSISIN CHEMISTRY	S	3	0	0	3	6
CHEM6005	DESIGN OF MOLECULE IN ORGANIC	S	3	0	0	3	6	CHEM6004	MICROMETHODSIN ANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM6007	LIQUID CHROMATOGRAPHY	S	3	0	0	3	6	CHEM6006	COUPLED METHODS IN CHROMATOGRAPHY	S	3	0	0	3	6
CHEM6009	ACTIVATED CARBON ADSORPTION AND APPLICATIONS	S	3	0	0	3	6	CHEM6008	CHEMOMETRIC METHODS	S	3	0	0	3	6
CHEM6011	ANALYTICAL TECHNIQUES IN VOLTAMMETRY	S	3	0	0	3	6	CHEM6010	BIOANALYTICAL CHEMISTRY	S	3	0	0	3	6
CHEM6013	ANALYTICAL CHEMISTRY OF COMPLEX MATRICES	S	3	0	0	3	6	CHEM6012	ASYMMETRIC SYNTHESIS IN ORGANIC CHEMİSTRY	S	3	0	0	3	6
CHEM6015	ATOMIC SPECTROSCOPIC METHODS	S	3	0	0	3	6	CHEM6014	NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY IN ORGANIC STRUCTURE IDENTIFICATION	S	3	0	0	3	6
CHEM6017	MECHANISMS OF MOLECULAR REARRANGEMENTS I	S	3	0	0	3	6	CHEM6016	INTERFACESCIENCE II	S	3	0	0	3	6
CHEM6019	PRINCIPLES OF ORGANIC SYNTHESIS I	S	3	0	0	3	6	CHEM6018	SOLID STATE CHEMISTRY	S	3	0	0	3	6
CHEM6021	CATALYSIS	S	3	0	0	3	6	CHEM6020	ELECTROCHEMICALSENSORS	S	3	0	0	3	6
CHEM6023	CRYSTAL CHEMISTRY	S	3	0	0	3	6	CHEM6022	ADVANCED MATERIAL CHEMISTRY	S	3	0	0	3	6
CHEM6025	NATURAL ANTIOXIDANTS	S	3	0	0	3	6	CHEM6024	ADVANCEDBIOINORGANIC	S	3	0	0	3	6

										CHEMISTRY							
	CHEM6027	MOLECULAR SYMMETRYAND APPLICATIONS	S	3	0	0	3	6	CHEM6026	REACTION MECHANISMSIN INORGANIC	S	3	0	0	3	6
	CHEM6029	BORON CHEMISTRY	S	3	0	0	3	6	CHEM6028	MOLECULAR RECOGNITION AND BIOMOLECULE COMPLEXES	S	3	0	0	3	6
	CHEM6031	ADVANCED ORGANOMETALIC CHEMISTRY	S	3	0	0	3	6	CHEM6030	FRACTIONATION AND SPECIATION METHODS IN FOOD SAMPLES	S	3	0	0	3	6
	CHEM6035	ION-EXCHANGERS AND THEIR APPLICATIONS	S	3	0	0	3	6	CHEM6032	INORGANIC POLYMERS	S	3	0	0	3	6
	CHEM6037	PROTEIN PURIFICATION AND CHARACTERIZATION	S	3	0	0	3	6	CHEM 6034	X-RAY CRYSTALLOGRAPHY	S	3	0	0	3	6
	CHEM6039	INTERFACESCIENCE I	S	3	0	0	3	6	CHEM6036	POLYMER KINETIC THEORIES	S	3	0	0	3	6
	CHEM6041	ADVANCEDPOLYMER SCIENCEAND TECHNOLOGYI	S	3	0	0	3	6	CHEM6038	ADVANCEDPOLYMER SCIENCEAND TECHNOLOGY II	S	3	0	0	3	6
	CHEM6043	OXIDATION MECHANISMS IN ORGANIC CHEMISTRY	S	3	0	0	3	6	CHEM6040	MACROMOLECULAR CHEMISTRY	S	3	0	0	3	6
	CHEM6045	QUALITY CONTROL IN ANALYTICAL CHEMISTRY	S	3	0	0	3	6	CHEM6042	STRUCTURE IDENTIFICATION IN ORGANIC CHEMISTRY	S	3	0	0	3	6
	CHEM6047	ADVANCED COORDINATION CHEMISTRY	S	3	0	0	3	6	CHEM6044	MECHANISMS OF MOLECULAR REARRANGEMENTS II	S	3	0	0	3	6
	CHEM6049	OPTICAL AND CHEMICAL SENSORS	S	3	0	0	3	6	CHEM6046	PRINCIPLES OF ORGANIC SYNTHESIS II	S	3	0	0	3	6
									CHEM6048	CORROSION AND ITS ELECTROCHEMICAL BASICS	S	3	0	0	3	6
									KIM6050	OLED TECHNOLOGY	S	3	0	0	3	6
						Total Credits	**14**	**30**						**Total Credits**	**12**	**30**	
STAGE THESIS	**V. TERM / FALL**								**VI. TERM / SPRING**								
	CHEM6185	ADVANCED TOPICS IN PHD THESIS V	Z	4	0	0	0	5	CHEM6186	ADVANCED TOPICS IN PHD THESIS VI	Z	4	0	0	0	5
	CHEM6195	PHD THESIS V	Z	0	1	0	0	15	CHEM6196	PHD THESIS VI	Z	0	1	0	0	25
	CHEM 6177	PHD PROFICIENCY EXAMINATION	Z	0	0	0	0	10								
						Total Credits	**0**	**30**						**Total Credits**	**0**	**30**	
	VII. TERM / FALL								**VIII. TERM / SPRING**								
	CHEM6187	ADVANCED TOPICS IN PHD THESIS VII	Z	4	0	0	0	5	CHEM6188	ADVANCED TOPICS IN PHD THESIS VIII	Z	4	0	0	0	5
	CHEM6197	PHD THESIS VII	Z	0	0	0	0	25	CHEM6198	PHD THESIS VIII	Z	0	0	0	0	25
						Total Credits	**0**	**30**						**Total Credits**	**0**	**30**	
	IX. TERM / FALL								**X. TERM / FALL**								
	CHEM6189	ADVANCED TOPICS IN PHD THESIS IX	Z	4	0	0	0	5	CHEM6190	ADVANCED TOPICS IN PHD THESIS X	Z	4	0	0	0	5
	CHEM6199	PHD THESIS IX	Z	0	0	0	0	25	CHEM6200	PHD THESIS X	Z	0	0	0	0	25
						Total Credits	**0**	**30**						**Total Credits**	**0**	**30**	

TOTAL CREDITS: 47 - TOTAL ECTS: 260