EK: 2/7

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| **logosbULUDAĞ 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** | **II. TERM / SPRING** |
| **Code** | **Course Title** | **Type** | **T** | **U** | **L** | **Credit** | **ECTS** | **Code** | **Course Title** | **Type** | **T** | **U** | **L** | **Credit** | **ECTS** |
| CHEM5001 | SPECTROSCOPIC METHODS IN ANALYTICAL CHEMISTRY | Z | 3 | 0 | 0 | 3 | 6 | CHEM5172 | SEMINAR | Z | 0 | 2 | 0 | 0 | 4 |
| CHEM5003 | ADVANCED INORGANIC CHEMISTRY | Z | 3 | 0 | 0 | 3 | 6 | CHEM5002 | PHYSICAL CHEMISTRY OF ATOM AND MOLECULAR SYSTEMS | Z | 3 | 0 | 0 | 3 | 6 |
| CHEM5025 | ADVANCED BIOCHEMISTRY | Z | 3 | 0 | 0 | 3 | 6 | CHEM5004 | ADVANCED ORGANIC CHEMISTRY | Z | 3 | 0 | 0 | 3 | 6 |
| CHEM5191 | MA THESIS I | Z | 0 | 1 | 0 | 0 | 1 | OTO5000 | RESEARCH TECHNIQUES and PUBLICATION ETHICS in CHEMISTRY | C | 2 | 0 | 0 | 2 | 2 |
|  |  |  |  |  |  |  |  | CHEM5192 | MA THESIS II | Z | 0 | 1 | 0 | 0 | 1 |
| CHEM5181 | ADVANCED TOPICS IN MA THESIS I | S | 4 | 0 | 0 | 0 | 5 | CHEM5182 | ADVANCED TOPICS IN MA THESIS II | S | 4 | 0 | 0 | 0 | 5 |
| CHEM5005 | ADVANCEDANALYTICAL CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 | CHEM5006 | CHROMATOGRAPHIC METHODSIN ANALYTICAL CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5007 | SAMPLE PREPARATIONMETHODSIN ANALYTICAL CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 | CHEM5008 | MASS SPECTROMETRIC METHODS | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5009 | INTRODUCTION TOCHEMOMETRICS | S | 3 | 0 | 0 | 3 | 6 | CHEM5010 | INTRODUCTION TO ATOMIC SPECTROSCOPY | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5011 | POTENTIOMETRY IN ANALYTICAL CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 | CHEM5012 | NUCLEARANALYTICALTECHNIQUES | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5013 | SPECTROSCOPIC METHODS IN INORGANIC CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 | CHEM5014 | SELECTED TOPICS INCOORDINATION CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5015 | THERMALANALYSIS METHODS | S | 3 | 0 | 0 | 3 | 6 | CHEM5016 | CYCLICVOLTAMMETRY | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5017 | INDUSTRIAL INORGANIC CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 | CHEM5018 | RESEARCH METHODSIN INORGANIC CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5019 | ACIDS, BASES AND SOLVENTS | S | 3 | 0 | 0 | 3 | 6 | CHEM5020 | CHEMISTRY OF COORDINATION COMPOUNDS IN SOLUTIONS | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5021 | SMART POLYMERS | S | 3 | 0 | 0 | 3 | 6 | CHEM5022 | CHEMISTRY OFELEMENTS | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5023 |  POROUS MATERIALS | S | 3 | 0 | 0 | 3 | 6 | CHEM5024 | OXIDATIONANDREDUCTIONREACTIONSIN INORGANIC CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5027 | PHYSIOCHEMICAL TREATMENTTECHNIQUESWASTEWATER | S | 3 | 0 | 0 | 3 | 6 | CHEM5026 | ADVANCED ANALYSIS TECHNIQUES OF BIOMOLECULES | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5029 | SEPERATION AND PURIFICATION TECHNIQUES IN ORGANIC CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 | CHEM5028 | ELECTRONIC TEORIES IN ORGANIC CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 |
| 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** |
| **STAGE THESIS** | **III. TERM / FALL** | **IV. TERM / SPRING** |
| 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 |