List course code numbers that are required prior to taking this course.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Level | CourseCode | Course Title | Requiredor Elective | \* Pre-RequisiteCourses | CreditHours | College orDepartment |
| Level1 | 999801-2 | English for Academic Purposes 1 | Required |  | 3 | Mathematics |
| 201104-4 | General Biology | Required |  | 4(3+1) | Chemistry |
| CHEM101-4 | General Chemistry 1 | Required |  | 4 | Biology  |
| 990115-2 | History of the Kingdom |  |  |  |  |
| 202112-3 | Introduction to Mathematics | Required |  | 2 | Fac. of arts |
| 999801-2 | English for Academic Purposes 1 | Required |  | 2 | Fac. of arts |
| Level 2 | 2021204-4 | Calculus 1 | Required |  | 4 | Mathematics |
| 2031204-4 | General physics 1 | Required |  | 3 | Biology |
| 2051204-3 | Introduction to Biotechnology | Required |  | 4 | Physics |
| 990211-2 | Arabic Language Skills | Required |  | 2 | Fac. of arts |
| 999802-2 | English for Academic Purposes 2 | Required |  | 2 | Fac. of arts |
| 990311-2 | University Study Skills | Required |  | 2 | Fac. of arts |
| Level 3 | CHEM2103-3 | General Chemistry 2 | Required | CHEM101-4 | 3 (2+1) | Chemistry |
| CHEM2105-3 | Organic Chemistry 1 | Required | CHEM101-4 | 3 (2+1) | Chemistry |
| CHEM 2104-3 | Volumetric and gravimetric Analysis | Required | CHEM101-4 | 3 (2+1) | Chemistry |
| CHEM 2102-2 | Inorganic Chemistry 1 | Required | CHEM101-4 | 2 | Chemistry |
| CHEM 2101-2 | Quantum chemistry  | Required | CHEM101-4 | 2 | Chemistry |
| 990111-2 | Fundamentals of Islamic Culture  | Required |  | 2 | Fac. of. Regulations |
| 999803-2 | English for Academic Purposes 3  | Required |  | 2 | Fac. of arts |
| Level 4 | CHEM 2204-3 | Inorganic Chemistry 2 | Required | CHEM2102-2 | 3 | Chemistry |
| CHEM 2203-3 | Organic Chemistry 2 |  | CHEM2105-3 | 3 (2+1) | Chemistry |
| CHEM 2202-3 | Thermodynamics | Required | CHEM2103-3 | 3 | Chemistry |
| CHEM 2201-3 | Spectral Analysis | Required |  | 3 (2+1) | Chemistry |
| 990112-2 | Islamic Culture (Morals and Values) | Required |  | 2 | Fac. of. Regulations |
| 999804-2 | English for Academic Purposes 4  | Required |  | 2 | Fac. of arts |
| Level 5 | CHEM 3106-3 | Biochemistry. | Required | CHEM2203-3 | 3 (2+1) | Chemistry |
| CHEM 3105-2 | Stereochemistry | Required | CHEM2203-3 | 2 | Chemistry |
| CHEM 3104-3 | Chromatographic Separation methods | Required | CHEM2104-3 | 3 (2+1) | Chemistry |
| CHEM 3103-3 | Chemical kinetics | Required | CHEM101-4 | 3 (2+1) | Chemistry |
| CHEM 3102-3 | Electrochemistry | Required | CHEM2103-3 | 3 (2+1) | Chemistry |
| CHEM3101-3 | Coordination Chemistry | Required | CHEM2204-3 | 3 (2+1) | Chemistry |
| 999807-2 | English for Specific Purposes 1  | Required |  | 2 | Fac. of arts |
| Level 6 | CHEM3207-2 | Inorganic reaction mechanism | Required | CHEM3101-3 | 2 (1+1) | Chemistry |
| CHEM3206-2 | Physical Organic Chemistry | Required | CHEM2203-3 | 2 | Chemistry |
| CHEM3205-2 | Chemistry of Environmental Analysis | Required | CHEM2104-3 | 2 (1+1) | Chemistry |
| CHEM3204-2 |  Group-Theory. | Required | CHEM2101-2 | 2 | Chemistry |
| CHEM3203-2 | Solid State Chemistry | Required | CHEM2103-3 | 2 | Chemistry |
| CHEM3202-3 | Heterocyclic Chemistry |  | CHEM2203-3 | 3 (2+1) | Chemistry |
| CHEM3201-2 | Organometallic Chemistry | Required | CHEM2203-3 | 2 | Chemistry |
| 990313-2 | Islamic Studies 3 | Required |  | 2 | Fac. of. Regulations |
| Level 7 | CHEM4102-2 | Inorganic Spectroscopy | Required | CHEM3207-2 | 2 | Chemistry |
| CHEM4101-3 | Organic Spectroscopy | Required | CHEM2203-3 | 3 (2+1) | Chemistry |
| CHEM4103-2 | Principle of nanotechnology | Required | CHEM2103-3 | 2 | Chemistry |
| CHEM4104-3 | Surface and catalysis chemistry | Required | CHEM3103-3 | 3 (2+1) | Chemistry |
| CHEM4105-3 | Cooperative Training. | Required |  | 3 | Chemistry |
| CHEM4110-2 | Radio Nuclear Chemistry | Selective |  | 2 | Chemistry |
| CHEM4111-2 | Natural Products | Selective |  | 2 | Chemistry |
| 999809-2 | English Course (Elective 1) | Required |  | 2 | Fac. of arts |
| 990414-2 | Islamic Studies 4 | Required |  | 2 | Fac. of. Regulations |
| Level 8 | CHEM4201-3 | Graduation project | Required |  | 3 | Chemistry |
| CHEM4202-2 | Polymer Chemistry | Required | CHEM2203-3 | 2 | Chemistry |
| CHEM4203-2 | Petroleum analysis | Required | CHEM3104-3 | 2 | Chemistry |
| CHEM4204-2 | Advanced material science | Required | CHEM4103-2 | 2 | Chemistry |
| CHEM4205-2 | Molecular spectroscopy | Required | CHEM2101-2 | 2 | Chemistry |
| CHEM4206-2 | Biophysical Chemistry | Required | CHEM3106-3 | 2 | Chemistry |
| CHEM4207-1 | Corrosion chemistry | Required | CHEM3102-3 | 1 | Chemistry |
| CHEM4215-2 | Modern Trends in Analytical Chemistry | Elective |  | 2 | Chemistry |
| CHEM4214-2 | Industrial Chemistry | Elective |  | 2 | Chemistry |
|  | CHEM4210-2 | Advanced Nanotechnology | Elective | CHEM4103-3 | 2 | Chemistry |
|  | CHEM4212-2 | Computational Chemistry | Elective |  | 2 (1+1) | Chemistry |
|  | CHEM4213-2 | Water desalination | Elective |  | 2 | Chemistry |
|  | Include additional levels if needed (ie. summer courses). No |