## Bachelor Degree Program in Chemistry and Biology Education

This program is composed of 2 related sciences. The program is based on professional knowledge and skills in chemistry and biology science with a diversity of teaching methods. Internships are a necessary part of the program, and students are given an opportunity for a practicum and internship at "Dunya" High School and/or other schools.

| Code | Courses | Credits |
| :---: | :---: | :---: |
| University Requirements |  | 54 |
| General Education Requirements |  | 42 |
| Major Requirements |  | 156 |
|  | Core Chemistry Courses | 42 |
| CHEM 208 | General and inorganic chemistry | 6 |
| CHEM 220 | Organic chemistry | 6 |
| CHEM 251 | Oil chemistry | 6 |
| CHEM 311 | Physical chemistry | 6 |
| CHEM 320 | Chemistry of High-molecular Compounds (Polymer Chemistry) | 6 |
| CHEM 321 | Analytical chemistry | 6 |
| CHEM 352 | Colloid chemistry | 6 |
|  | Elective Chemistry Courses | 18 |
| CHEM 201 | Biochemistry | 6 |
| CHEM 417 | Ecological Chemistry | 6 |
| CHEM 404 | Fundamentals of chemistry technology | 6 |
| CHEM 442 | Chemical Calculations | 6 |
|  | Core Biology Courses | 54 |
| BIO 101 | General biology | 6 |
| BIO 203 | Cytology, histology and embryology | 6 |
| BIO 217 | Plant physiology | 6 |
| BIO 222 | Systematical zoology | 6 |
| BIO 312 | Human anatomy | 6 |
| BIO 321 | Systematical botanics | 6 |
| BIO 365 | Human and animal physiology | 6 |
| BIO 403 | Molecular biology | 6 |


| BIO 404 | Genetics and selection | 6 |
| :--- | :--- | :---: |
|  |  | Elective Biology Courses |
| BIO 412 | Central nervous system | $\mathbf{1 8}$ |
| BIO 422 | Membranology | 6 |
| BIO 433 | Entomology and plant protection | 6 |
| BIO 434 | Microbiology | 6 |
|  | Methods of Teaching | 6 |
| EDU | Teaching Methods of Chemistry | $\mathbf{1 2}$ |
| EDU | Teaching Methods of Biology | 6 |
|  |  | Core Education Courses |
| EDU 201 | Introduction to Education | $\mathbf{1 2}$ |
| PSYC 304 | Basics of Educational Psychology | 6 |
|  | Practicum and Internship | 6 |
| TOTAL |  | $\mathbf{1 2}$ |

Note: The school may also offer alternative courses to those listed above.

