## **Study Plan**

| Level       | Course<br>Code | Course Title  | Required<br>or<br>Elective | Pre-<br>Requisite<br>Courses | Credit<br>Hours | Type of requirements (Institution, College, or Program) |
|-------------|----------------|---|----------------------------|------------------------------|-----------------|---|
| Level 1     | CSC1101        | Introduction to Computing                           | Required                   | -                            | 3               | Institution   |
|             | EDUF1102       | Thinking Critical Skills & Applications             | Required                   | -                            | 3               | Institution   |
|             | ELS1101        | English 1   | Required                   | -                            | 3               | Institution   |
|             | MATH1101       | Introduction to Mathematics                         | Required                   | -                            | 3               | Institution   |
|             | PHYS1101       | of Fundamentals Physics                             | Required                   | -                            | 3               | College   |
|             | CHEM1101       | of Fundamentals Chemistry                           | Required                   | -                            | 3               | College   |
|             | ARAB1101       | Language Arabic Skills                              | Required                   | -                            | 2               | Institution   |
|             | BIO1101        | of Fundamentals Biology                             | Required                   | -                            | 3               | College   |
|             | ELS1102        | English 2   | Required                   | ELS1101                      | 3               | Institution   |
| 7           | MATH1102       | Differential calculus                               | Required                   | MATH1101                     | 3               | Institution   |
| vel         | CID1101        | skills Communication                                | Required                   | -                            | 2               | Institution   |
| Level 2     | ISLS1101       | Islamic Culture Between Authenticity & contemporary | Required                   | -                            | 2               | Institution   |
|             | GEE_S          | Elective Natural and Social Sciences<br>Course      | Elective                   | -                            | 3               | Institution   |
|             | ISLS1201       | Ethics and civilized. values in Islam               | Required                   | ISLS1101                     | 2               | Institution   |
|             | GEE_T          | Technology Elective Course                          | Elective                   | -                            | 3               | Institution   |
| 13          | BIO1201        | of Principles Environmental<br>Sustainability       | Required                   | -                            | 2               | College   |
| Level 3     | BIO1208        | Biodiversity  | Required                   | -                            | 2               | College   |
| Γ           | CHEM1202       | Organic Chemistry 1                                 | Required                   | CHEM1101                     | 3               | Program   |
|             | BIOC1201       | General Biochemistry 1                              | Required                   | BIO1101                      | 3               | Program   |
|             | BIOC1202       | Biochemistry Cellular                               | Required                   | BIO1101                      | 3               | Program   |
| Level 4     | GEE_L          | Languages Elective course                           | Elective                   | -                            | 3               | Institution   |
|             | PHY1206        | Natural Resources                                   | Required                   |                              | 2               | College   |
|             | BIOC1203       | General Biochemistry 2                              | Required                   | BIOC1201                     | 3               | Program   |
|             | BIOC1204       | Enzymology  | Required                   | BIOC1201                     | 3               | Program   |
|             | BIOC1205       | Plant Biochemistry                                  | Required                   | BIOC1202<br>BIO1208          | 2               | Program   |
|             | BIOC1206       | Physical Biochemistry                               | Required                   | BIOC1201                     | 3               | Program   |
|             | BIOC1207       | Vitamins and Minerals                               | Required                   | CHEM1202                     | 3               | Program   |
|             | GEE_C          | Cultures Course                                     | Elective                   | -                            | 2               | Institution   |
|             |                | Elective Cultures Course                            |                            |                              |                 |   |
|             | BIOC1301       | Metabolism 1  | Required                   | BIOC1204                     | 3               | Program   |
| Level 5     | BIOC1302       | Analytical Biochemistry                             | Required                   | BIOC1206<br>BIO1201          | 3               | Program   |
| Level 6 Lev | BIOC1303       | Biochemistry of Blood                               | Required                   | BIOC1203                     | 3               | Program   |
|             | BIOC1304       | Molecular Biochemistry                              | Required                   | BIOC1202                     | 4               | Program   |
|             | BIOC1305       | of Biochemistry Nutrition                           | Required                   | BIOC1207<br>PHYS1206         | 3               | Program   |
|             | GEE_P          | Elective Professional and Personal Development      | Elective                   | -                            | 2               | Institution   |
|             | BIOC1306       | Metabolism 2  | Required                   | BIOC1301                     | 3               | Program   |
|             | BIOC1307       | Hormones  | Required                   | BIOC1303                     | 3               | Program   |
|             | BIOC1308       | Immunology  | Required                   | BIOC1303                     | 3               | Program   |
|             | BIOC1309       | Microbial Biochemistry                              | Required                   | BIOC1304                     | 2               | Program   |
|             | BIOC1310       | Engineering Genetic                                 | Required                   | BIOC1304                     | 3               | Program   |
|             | BIOCXXX1       | 1 course Elective                                   | Elective                   |                              | 2               | Program   |
| Level 7     | BIOC1401       | Biochemistry Tumor                                  | Required                   | BIOC1304                     | 2               | Program   |
|             | BIOC1402       | Biochemistry Medical                                | Required                   | BIOC1303                     | 3               | Program   |
|             | BIOC1403       | Bioinformatics                                      | Required                   | BIOC1310                     | 3               | Program   |
|             | BIOC1404       | Biotechnology                                       | Required                   | BIOC1310                     | 3               | Program   |

|        | BIOC1498 | Project                        | Required | EDUF1251           | 3 | Program |
|--------|----------|--------------------------------|----------|--------------------|---|---------|
|        | BIOCXXX2 | Elective course                | Elective | -                  | 2 | Program |
|        | BIOCXXX3 | Elective course 3              | Elective | -                  | 2 | Program |
| ∞      | BIOC1405 | Industrial Biochemistry        | Required | BIOC1404           | 3 | Program |
| evel 8 | BIOC1406 | Medical Genetics & Epigenetics | Required | BIOC1402           | 3 | Program |
| Lev    | BIOC1495 | Training                       | Required | 90 Credit<br>Hours | 3 | Program |