



**Study Plan for the  
Bachelor Degree in  
General Biology  
132 credit hours**

## Study Plan for the Bachelor Degree in **GENERAL BIOLOGY** **132 credit hours**

### Requirements for the B.Sc. Degree in General Biology

All students working for their Bachelor's Degree in General Biology must successfully complete 132 credit hours distributed as follows:

| Requirements             |                    | Credit Hours |
|--------------------------|--------------------|--------------|
| University Requirements  | Compulsory Courses | 15           |
| Faculty Requirements     | Compulsory Courses | 27           |
| Departments Requirements | Compulsory Courses | 82           |
|                          | Elective Courses   | 8            |
| Total Credit Hours       |                    | 132          |

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Dr Ahmed A. Alghamdi

Dr Yasser E. Shahein

## Study Plan for the Bachelor Degree in **GENERAL BIOLOGY**

### FIRST YEAR

| FIRST SEMESTER |                                 |     |       |      | SECOND SEMESTER |                              |     |       |      |
|----------------|---------------------------------|-----|-------|------|-----------------|------------------------------|-----|-------|------|
| CODE           | COURSE TITLE                    | Cr. | Lect. | Lab. | CODE            | COURSE TITLE                 | Cr. | Lect. | Lab. |
| ARAB 101       | Arabic language skills          | 2   | 2     | 0    | ARAB 102        | Arabic Composition           | 2   | 2     | 0    |
| ENGL 110       | English language                | 3   | 3     | 0    | BIOL 101        | General Biology              | 4   | 3     | 3    |
| IC 101         | Introduction to Islamic culture | 2   | 2     | 0    | CHEM 101        | General Chemistry I          | 4   | 3     | 3    |
| MATH 101       | Calculus I                      | 4   | 4     | 0    | ENGL 101        | English Composition I        | 3   | 3     | 0    |
| PHYS 100       | Renewable Energy                | 2   | 2     | 0    | IC 102          | Islamic and Society Building | 2   | 2     | 0    |
| PHYS 101       | General Physics I               | 4   | 3     | 3    | ICS 103         | Computer Programming         | 3   | 2     | 3    |
| TOTAL          |                                 | 17  | 16    | 3    | TOTAL           |                              | 18  | 15    | 9    |

### SECOND YEAR

| FIRST SEMESTER |                          |     |       |      | SECOND SEMESTER |                            |     |       |      |
|----------------|--------------------------|-----|-------|------|-----------------|----------------------------|-----|-------|------|
| CODE           | COURSE TITLE             | Cr. | Lect. | Lab. | CODE            | COURSE TITLE               | Cr. | Lect. | Lab. |
| BIOL211        | Cell Biology             | 2   | 2     | 0    | BIOL212         | General Genetics           | 3   | 2     | 3    |
| BIOL221        | Systematic Botany        | 3   | 2     | 3    | BIOL241         | General Ecology            | 3   | 2     | 3    |
| BIOL231        | Systematic Zoology       | 3   | 2     | 3    | CHEM270         | Organic Chemistry          | 3   | 2     | 3    |
| ENGL 102       | English Composition II   | 3   | 3     | 0    | GEOL201         | Physical Geology           | 3   | 2     | 3    |
| IC 103         | Economic System in Islam | 2   | 2     | 0    | IC 104          | Basics of Political System | 2   | 2     | 0    |
| MATH205        | Biostatistics            | 2   | 2     | 0    |                 |                            |     |       |      |
| TOTAL          |                          | 15  | 13    | 6    | TOTAL           |                            | 14  | 10    | 12   |

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### THIRD YEAR

| FIRST SEMESTER |                            |     |       |      | SECOND SEMESTER |                               |     |       |      |
|----------------|----------------------------|-----|-------|------|-----------------|-------------------------------|-----|-------|------|
| CODE           | COURSE TITLE               | Cr. | Lect. | Lab. | CODE            | COURSE TITLE                  | Cr. | Lect. | Lab. |
| BIOL311        | Basic Biochemistry         | 3   | 2     | 3    | BIOL312         | Molecular Biology             | 3   | 2     | 3    |
| BIOL324        | General Microbiology       | 3   | 2     | 3    | BIOL322         | Plant Taxonomy                | 3   | 2     | 3    |
| BIOL331        | Invertebrates              | 3   | 2     | 3    | BIOL327         | Research Design & Methodology | 1   | 1     | 0    |
| BIOL332        | Chordates                  | 3   | 2     | 3    | BIOL367         | Basic Plant Physiology        | 3   | 2     | 3    |
| BIOL333        | Animal Histology           | 2   | 1     | 3    | BIOL368         | Basic Animal Physiology       | 3   | 2     | 3    |
| BIOL353        | Plant Morphology & Anatomy | 3   | 2     | 3    | BIOL383         | Economic Zoology              | 1   | 1     | 0    |
|                |                            |     |       |      | BIOL437         | Fauna and Flora of KSA        | 2   | 1     | 3    |
| TOTAL          |                            | 17  | 11    | 18   | TOTAL           |                               | 16  | 11    | 15   |

### FOURTH YEAR

| FIRST SEMESTER |                             |     |       |      | SECOND SEMESTER |                           |     |       |      |
|----------------|-----------------------------|-----|-------|------|-----------------|---------------------------|-----|-------|------|
| CODE           | COURSE TITLE                | Cr. | Lect. | Lab. | CODE            | COURSE TITLE              | Cr. | Lect. | Lab. |
| BIOLxxx        | Elective (1)                | 2   | -     | -    | BIOLxxx         | Elective (3)              | 2   | -     | -    |
| BIOLxxx        | Elective (2)                | 2   | -     | -    | BIOLxxx         | Elective (4)              | 2   | -     | -    |
| BIOL417        | Principles of Biotechnology | 3   | 2     | 3    | BIOL419         | Archegoniates & Phycology | 2   | 1     | 3    |
| BIOL418        | Environmental Pollution     | 2   | 2     | 0    | BIOL434         | Immunology                | 3   | 2     | 3    |
| BIOL422        | Plant Ecology               | 3   | 2     | 3    | BIOL435         | Parasitology              | 3   | 2     | 3    |
| BIOL431        | Animal Ecology and Behavior | 3   | 2     | 3    | BIOL436         | Animal Embryology         | 2   | 1     | 3    |
| BIOL433        | Entomology                  | 3   | 2     | 3    | BIOL497         | Research Project          | 3   | 0     | 6    |
| TOTAL          |                             | 18  | -     | -    | TOTAL           |                           | 17  | -     | -    |

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## GENERAL BIOLOGY

| UNIVERSITY COMPULSORY COURSES (15 hours) |                                 |     |       |      |               |
|------------------------------------------|---------------------------------|-----|-------|------|---------------|
| CODE                                     | COURSE TITLE                    | Cr. | Lect. | Lab. | PRE-REQUISITE |
| ARAB 101                                 | Arabic language skills          | 2   | 2     | 0    | -             |
| ARAB 102                                 | Arabic Composition              | 2   | 2     | 0    | -             |
| ENGL 110                                 | English language                | 3   | 3     | 0    | -             |
| IC 101                                   | Introduction to Islamic culture | 2   | 2     | 0    | -             |
| IC 102                                   | Islamic and Society Building    | 2   | 2     | 0    | -             |
| IC 103                                   | Economic System in Islam        | 2   | 2     | 0    | -             |
| IC 104                                   | Basics of Political System      | 2   | 2     | 0    | -             |
| TOTAL                                    |                                 | 15  | 15    | 0    |               |

| FACULTY COMPULSORY COURSES (27 hours) |                        |     |       |      |               |
|---------------------------------------|------------------------|-----|-------|------|---------------|
| CODE                                  | COURSE TITLE           | Cr. | Lect. | Lab. | PRE-REQUISITE |
| BIOL 101                              | General Biology        | 4   | 3     | 3    | -             |
| CHEM 101                              | General Chemistry I    | 4   | 3     | 3    | -             |
| ENGL 101                              | English Composition I  | 3   | 3     | 0    | -             |
| ENGL 102                              | English Composition II | 3   | 3     | 0    | ENGL 101      |
| ICS 103                               | Computer Programming   | 3   | 2     | 3    | MATH 101      |
| MATH 101                              | Calculus I             | 4   | 4     | 0    | -             |
| PHYS 100                              | Renewable Energy       | 2   | 2     | 0    | -             |
| PHYS 101                              | General Physics I      | 4   | 3     | 3    | CO- MATH 101  |
| TOTAL                                 |                        | 27  | 23    | 12   |               |

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## GENERAL BIOLOGY

| COMPULSORY COURSES FOR GENERAL BIOLOGY PROGRAM (82 hours) |                               |     |       |      |                                                    |
|-----------------------------------------------------------|-------------------------------|-----|-------|------|----------------------------------------------------|
| CODE                                                      | COURSE TITLE                  | Cr. | Lect. | Lab. | PRE-REQUISITE                                      |
| CHEM 270                                                  | Organic Chemistry             | 3   | 2     | 3    | CHEM101                                            |
| GEOL201                                                   | Physical Geology              | 3   | 2     | 3    | CHEM101                                            |
| MATH205                                                   | Biostatistics                 | 2   | 2     | 0    | MATH101                                            |
| BIOL211                                                   | Cell Biology                  | 2   | 2     | 0    | BIOL101                                            |
| BIOL212                                                   | General Genetics              | 3   | 2     | 3    | BIOL101                                            |
| BIOL221                                                   | Systematic Botany             | 3   | 2     | 3    | BIOL101                                            |
| BIOL231                                                   | Systematic Zoology            | 3   | 2     | 3    | BIOL101                                            |
| BIOL241                                                   | General Ecology               | 3   | 2     | 3    | BIOL101                                            |
| BIOL311                                                   | Basic Biochemistry            | 3   | 2     | 3    | BIOL101                                            |
| BIOL312                                                   | Molecular Biology             | 3   | 2     | 3    | BIOL211                                            |
| BIOL322                                                   | Plant Taxonomy                | 3   | 2     | 3    | BIOL221                                            |
| BIOL324                                                   | General Microbiology          | 3   | 2     | 3    | BIOL101 & BIOL221                                  |
| BIOL327                                                   | Research Design & Methodology | 1   | 1     | 0    | MATH205                                            |
| BIOL331                                                   | Invertebrates                 | 3   | 2     | 3    | BIOL231                                            |
| BIOL332                                                   | Chordates                     | 3   | 2     | 3    | BIOL231                                            |
| BIOL333                                                   | Animal Histology              | 2   | 1     | 3    | BIOL211                                            |
| BIOL353                                                   | Plant Morphology & Anatomy    | 3   | 2     | 3    | BIOL101                                            |
| BIOL367                                                   | Basic Plant Physiology        | 3   | 2     | 3    | BIOL311                                            |
| BIOL368                                                   | Basic Animal Physiology       | 3   | 2     | 3    | BIOL311                                            |
| BIOL383                                                   | Economic Zoology              | 1   | 1     | 0    | BIOL231                                            |
| BIOL417                                                   | Principles of Biotechnology   | 3   | 2     | 3    | BIOL312                                            |
| BIOL418                                                   | Environmental Pollution       | 2   | 2     | 0    | BIOL241                                            |
| BIOL419                                                   | Archegoniates & Phycology     | 2   | 1     | 3    | BIOL221                                            |
| BIOL422                                                   | Plant Ecology                 | 3   | 2     | 3    | BIOL241                                            |
| BIOL431                                                   | Animal Ecology and Behavior   | 3   | 2     | 3    | BIOL241                                            |
| BIOL433                                                   | Entomology                    | 3   | 2     | 3    | BIOL231                                            |
| BIOL434                                                   | Immunology                    | 3   | 2     | 3    | BIOL324                                            |
| BIOL435                                                   | Parasitology                  | 3   | 2     | 3    | BIOL231                                            |
| BIOL436                                                   | Animal Embryology             | 2   | 1     | 3    | BIOL332                                            |
| BIOL437                                                   | Fauna and Flora of KSA        | 2   | 1     | 3    | BIOL231 & BIOL221                                  |
| BIOL497                                                   | Research Project              | 3   | 0     | 6    | 100 Earned Credit Hours<br>and Department Approval |
| TOTAL                                                     |                               | 82  | 54    | 81   |                                                    |

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| ELECTIVE COURSES FOR GENERAL BIOLOGY ( 8 hours) |                                      |     |       |      |                   |
|-------------------------------------------------|--------------------------------------|-----|-------|------|-------------------|
| CODE                                            | COURSE TITLE                         | Cr. | Lect. | Lab. | PRE-REQUISITE     |
| BIOL355                                         | Introduction to Remote Sensing & GIS | 2   | 2     | 0    | PHYS101 & BIOL241 |
| BIOL357                                         | Natural Resources Management         | 2   | 2     | 0    | BIOL241           |
| BIOL359                                         | Toxicology                           | 2   | 2     | 0    | BIOL311           |
| BIOL372                                         | Hydrobiology                         | 2   | 1     | 3    | BIOL231 & BIOL221 |
| BIOL373                                         | Biodiversity                         | 2   | 2     | 0    | BIOL241           |
| BIOL420                                         | Environmental Soil Science           | 2   | 2     | 0    | CHEM101 & GEOL201 |
| BIOL493                                         | Enzymology                           | 2   | 1     | 3    | BIOL311           |
| BIOL476                                         | Applied Microbiology                 | 2   | 1     | 3    | BIOL324           |
| BIOL490                                         | Advanced Plant Physiology            | 2   | 1     | 3    | BIOL367           |
| BIOL496                                         | Advanced Animal Physiology           | 2   | 1     | 3    | BIOL368           |

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