

M.Sc. CURRICULUM

Department of Biological Sciences

Semester I

| Course No. | Course Title | Credits |
|---------------|---|---------|
| BIO301 | Cell Biology | 4 |
| BIO303 | Biochemistry | 4 |
| BIO307 | Biology Laboratory III | 3 |
| BIO418 | Biophysics and Structural Biology | 4 |
| BIO*** | Department Elective I | 4 |
| ECO500 | Law Relating to Intellectual Property and Patents | 1 |
| Total Credits | | 20 |

Semester II

| Course No. | Course Title | Credits |
|---------------|----------------------------|---------|
| BIO304 | Molecular Biology | 4 |
| BIO306 | Immunology | 4 |
| BIO312 | Recombinant DNA Technology | 4 |
| BIO308 | Biology Laboratory IV | 3 |
| BIO407 | Biostatistics | 4 |
| BIO *** | Department Elective II | 4 |
| Total Credits | | 23 |

M.Sc. CURRICULUM

Department of Biological Sciences

Semester III

| Course No. | Course Title | Credits |
|---------------|-------------------------|---------|
| BIO313 | Virology | 4 |
| BIO419 | Bioentrepreneurship | 2 |
| BIO*** | Department Elective III | 4 |
| BIO*** | Department Elective IV | 4 |
| BIO551 | Research Project | 10 |
| Total Credits | | 24 |

Semester IV

| Course No. | Course Title | Credits |
|---------------|------------------|---------|
| BIO552 | Research Project | 18 |
| Total Credits | | 18 |

M.Sc. CURRICULUM

Department of Chemistry

Semester I

| Course No. | Course Title | Credits |
|---------------|---|---------|
| CHM301 | Symmetry and Group Theory | 4 |
| CHM311 | Organic Chemistry I | 4 |
| CHM313 | Organic Chemistry Laboratory | 3 |
| CHM325 | Mathematical Methods for Chemists | 4 |
| CHM401 | Main Group Chemistry | 4 |
| CHM6** | Department Elective I | 4 |
| ECO500 | Law Relating to Intellectual Property and Patents | 1 |
| Total Credits | | 24 |

Semester II

| Course No. | Course Title | Credits |
|---------------|---|---------|
| CHM302 | Chemistry of Transition Metals | 4 |
| CHM312 | Organic Chemistry II | 4 |
| CHM324 | Physical Properties of Matter | 4 |
| CHM402 | Applications of Modern Physical Methods | 4 |
| CHM416 | Spectroscopy and its Application in Organic Molecules | 4 |
| CHM426 | Physical Chemistry Laboratory | 3 |
| CHM428 | Quantum Mechanics and Spectroscopy | 4 |
| Total Credits | | 27 |

M.Sc. CURRICULUM

Department of Chemistry

Semester III

| Course No. | Course Title | Credits |
|---------------|--------------------------------|---------|
| CHM403 | Inorganic Chemistry Laboratory | 3 |
| CHM411 | Physical Organic Chemistry | 4 |
| CHM421 | Statistical Mechanics | 4 |
| CHM6** | Department Elective II | 4 |
| CHM6** | Department Elective III | 4 |
| *** 6** | Open Elective I | 4 |
| Total Credits | | 23 |

Semester IV

| Course No. | Course Title | Credits |
|---------------|------------------|---------|
| CHM551 | Research Project | 18 |
| Total Credits | | 24 |

M.Sc. CURRICULUM

Department of Mathematics

Semester I

| Course No. | Course Title | Credits |
|---------------|---|---------|
| MTH301 | Group Theory | 4 |
| MTH303 | Real Analysis I | 4 |
| MTH432 | Introduction to Probability and its Applications | 4 |
| MTH*** | Department Elective I | 4 |
| MTH*** | Department Elective II | 4 |
| ECO500 | Law Relating to Intellectual Property and Patents | 1 |
| Total Credits | | 21 |

Semester II

| Course No. | Course Title | Credits |
|---------------|---------------------------------|---------|
| MTH302 | Rings and Modules | 4 |
| MTH304 | General Topology | 4 |
| MTH306 | Ordinary Differential Equations | 4 |
| MTH404 | Measure and Integration | 4 |
| *** ** | Open Elective I | 4 |
| Total Credits | | 20 |

M.Sc. CURRICULUM

Department of Mathematics

Semester III

| Course No. | Course Title | Credits |
|-------------------|--------------------------------|----------------|
| MTH401 | Fields and Galois Theory | 4 |
| MTH403 | Real Analysis II | 4 |
| MTH405 | Partial Differential Equations | 4 |
| MTH407 | Complex Analysis I | 4 |
| *** ** | Open Elective II | 4 |
| Total Credits | | 20 |

Semester IV

| Course No. | Course Title | Credits |
|-------------------|-------------------------|----------------|
| MTH503 | Functional Analysis | 4 |
| MTH*** | Department Elective III | 4 |
| MTH*** | Department Elective IV | 4 |
| *** ** | Open Elective III | 4 |
| *** ** | Open Elective IV | 4 |
| Total Credits | | 20 |