

ISTINYE UNIVERSITY
FACULTY OF ARTS AND SCIENCES
DEPARTMENT OF MOLECULAR BIOLOGY AND GENETICS

| 1 st SEMESTER | | | | | |
|---------------|--|-----------|----------|-----------|-------------------------|
| C. Code | Course | T | P | ECTS | Language of Instruction |
| | Professional English I | 4 | 0 | 4 | EN |
| | Differential and Integral Calculus | 2 | 2 | 6 | EN |
| | General Biology I | 3 | 2 | 8 | EN |
| | General Chemistry | 2 | 1 | 4 | EN |
| | Ataturk's Principles and History of Turkish Revolution I | 2 | 0 | 2 | EN |
| | Turkish Language I | 2 | 0 | 2 | EN |
| | Introduction to Molecular Biology and Genetics | 2 | 0 | 3 | EN |
| | Introduction to Molecular Biology and Genetics Program | 0 | 2 | 1 | EN |
| | Manifest of Istinye | | | | |
| | TOTAL | 17 | 2 | 30 | |

| 3 rd SEMESTER | | | | | |
|---------------|-----------------------------------|-----------|----------|-----------|-------------------------|
| C. Code | Course | T | P | ECTS | Language of Instruction |
| | Academic English I | 4 | 0 | 4 | EN |
| | Organic Chemistry | 2 | 0 | 4 | EN |
| | Computational Thinking | 3 | 2 | 7 | EN |
| | Basic Genetics | 2 | 2 | 4 | EN |
| | Cell Biology | 3 | 2 | 7 | EN |
| | Manifest of Istinye III | 0 | 2 | 1 | EN |
| | Non-Departmental Elective Courses | 3 | 0 | 4 | |
| | TOTAL | 17 | 8 | 31 | |

| 5 th SEMESTER | | | | | |
|---------------|---------------------------------|-----------|----------|-----------|-------------------------|
| C. Code | Course | T | P | ECTS | Language of Instruction |
| | Biochemistry I | 3 | 2 | 8 | EN |
| | Biophysics | 3 | 0 | 4 | EN |
| | Molecular Genetics | 3 | 3 | 4 | EN |
| | Human Physiology | 3 | 0 | 4 | EN |
| | Molecular Biology of the Cell I | 3 | 0 | 5 | EN |
| | Departmental Elective Courses | 3 | 0 | 5 | EN |
| | TOTAL | 18 | 6 | 30 | |

| 7 th SEMESTER | | | | | |
|---------------|---|-----------|----------|-----------|-------------------------|
| C. Code | Course | T | P | ECTS | Language of Instruction |
| | Scientific Research Methods | 2 | 0 | 5 | EN |
| | Biostatistics and Bioinformatics | 3 | 0 | 6 | EN |
| | Current Techniques in Molecular Biology | 3 | 3 | 9 | EN |
| | Departmental Elective Courses | 3 | 0 | 5 | EN |
| | Departmental Elective Courses | 3 | 0 | 5 | EN |
| | TOTAL | 14 | 3 | 30 | |

| DEPARTMENTAL ELECTIVE COURSES | | | | | |
|-------------------------------|---------------------------------------|---|---|------|-------------------------|
| C. Code | Course | T | P | ECTS | Language of Instruction |
| | Microorganism Genetics | 3 | 0 | 5 | EN |
| | Plant Molecular Biology | 2 | 0 | 5 | EN |
| | Modeling of Biological Systems | 3 | 0 | 5 | EN |
| | Enzymology | 3 | 0 | 5 | EN |
| | Developmental Biology | 3 | 0 | 5 | EN |
| | Immunogenetics | 3 | 0 | 5 | EN |
| | Plant Tissue Culture | 2 | 2 | 5 | EN |
| | Cancer Biology | 3 | 0 | 5 | EN |
| | Introduction to Stem Cells | 3 | 0 | 5 | EN |
| | Neurobiology | 3 | 0 | 5 | EN |
| | Genetic Engineering and Biotechnology | 3 | 0 | 5 | EN |
| | Animal tissue culture | 3 | 0 | 5 | EN |
| | Genetics of Aging | 3 | 0 | 5 | EN |
| | Molecular Biology of Diseases | 2 | 0 | 5 | EN |

| 2 nd SEMESTER | | | | | |
|---------------|---|-----------|----------|-----------|-------------------------|
| C. Code | Course | T | P | ECTS | Language of Instruction |
| | Professional English II | 4 | 0 | 4 | EN |
| | General Biology II | 3 | 2 | 8 | EN |
| | General Physics | 3 | 0 | 5 | EN |
| | Manifest of Istinye II | 0 | 2 | 1 | EN |
| | History of Molecular Biology | 2 | 0 | 4 | EN |
| | Turkish Language II | 2 | 0 | 2 | EN |
| | Ataturk's Principles and History of Turkish Revolution II | 2 | 0 | 2 | EN |
| | Linear Algebra | 2 | 0 | 4 | |
| | TOTAL | 19 | 4 | 30 | |

| 4 th SEMESTER | | | | | |
|---------------|-------------------------------|-----------|----------|-----------|-------------------------|
| C. Code | Course | T | P | ECTS | Language of Instruction |
| | Academic English II | 4 | 0 | 4 | EN |
| | Organic Chemistry II | 2 | 0 | 4 | EN |
| | Human Genetics | 2 | 2 | 5 | EN |
| | Microbiology | 2 | 2 | 5 | EN |
| | Cytogenetics | 2 | 2 | 5 | EN |
| | Manifest of Istinye IV | 0 | 2 | 1 | EN |
| | Departmental Elective Courses | 3 | 0 | 5 | |
| | TOTAL | 15 | 8 | 29 | |

| 6 th SEMESTER | | | | | |
|---------------|-----------------------------------|-----------|----------|-----------|-------------------------|
| C. Code | Course | T | P | ECTS | Language of Instruction |
| | Biochemistry II | 3 | 3 | 8 | EN |
| | Molecular Evolution | 3 | 0 | 5 | EN |
| | Molecular Biology of the Cell II | 3 | 3 | 8 | EN |
| | Departmental Elective Courses | 3 | 0 | 5 | EN |
| | Non-Departmental Elective Courses | 3 | 0 | 4 | EN |
| | TOTAL | 15 | 6 | 30 | |

| 8 th SEMESTER | | | | | |
|---------------|--|-----------|----------|-----------|-------------------------|
| C. Code | Course | T | U | ECTS | Language of Instruction |
| | Graduation Project | 2 | 8 | 13 | EN |
| | Business Law, Occupational Health and Safety | 2 | 0 | 2 | EN |
| | Technical Elective Course | 2 | 0 | 5 | EN |
| | Departmental Elective Courses | 3 | 0 | 5 | EN |
| | Departmental Elective Courses | 3 | 0 | 5 | EN |
| | TOTAL | 12 | 8 | 30 | |

| NON-DEPARTMENTAL ELECTIVE COURSES | | | | | |
|-----------------------------------|----------------------------|---|---|------|-------------------------|
| C. Code | Course | T | P | ECTS | Language of Instruction |
| | Foreign Language | 3 | 0 | 4 | EN |
| | Entrepreneurship | 3 | 0 | 4 | EN |
| | Introduction to Psychology | 3 | 0 | 4 | EN |
| | Introduction to Sociology | 3 | 0 | 4 | EN |
| | Creative Writing | 3 | 0 | 4 | EN |
| | Written&Oral Communication | 3 | 0 | 4 | EN |
| | Critical Thinking | 3 | 0 | 4 | EN |

| TECHNICAL ELECTIVE COURSES | | | | | |
|----------------------------|------------------------------------|---|---|------|-------------------------|
| C. Code | Course | T | P | ECTS | Language of Instruction |
| | Anatomy | 3 | 0 | 5 | EN |
| | Science and Ethics | 3 | 0 | 5 | EN |
| | Pharmacogenetics | 3 | 0 | 5 | EN |
| | Basic Principles of Metabolism | 3 | 0 | 5 | EN |
| | Pathology | 3 | 0 | 5 | EN |
| | Introduction to Programming-Phyton | 3 | 0 | 5 | EN |