## BSc in Agricultural Mechanization Engineering - Curriculum Chart

Term 1

| Courses | Credits | Code | Prerequisites / (Corequisites) | Type |
| :--- | :--- | :--- | :--- | :--- |
| Mathematics 1 | $r$ |  | - | B |
| Physics 1 | r |  | - | B |
| Physics 1 Lab | 1 |  | (Physics 1) | B |
| General Chemistry | $r$ |  | - | B |
| Industrial Drawing 1 | 1 |  | - | R |
| Industrial Drawing 1 Practice | 1 |  | (Industrial Drawing 1) | R |
| English Language | $r$ |  | - | G |
| Student Life Skills | r |  | to be presented in Term 1 | G |
| Islamic Thought 1 | r |  | - | G |
| Total Credits | $1 \wedge$ |  |  |  |

Term 2

| Courses | Credits | Code | Prerequisites / (Corequisites) | Type |
| :--- | :--- | :--- | :--- | :--- |
| Mathematics 2 | $r$ |  | Mathematics 1 | B |
| Physics 2 | r |  | Physics 1 - Mathematics 1 | B |
| Physics 2 Lab | r |  | (Physics 2) | B |
| Engineering Statistics | r |  | Mathematics 1 | R |
| General Agriculture | r |  | - | R |
| General Agriculture Practice | r |  | (General Agriculture) | R |
| General Irrigation | r |  | Mathematics 1 | R |
| General Irrigation Practice | r |  | (General Irrigation) | R |
| Energy Production and Provision <br> Resources | r |  | - | R |
| Total Credits |  |  |  |  |

Term 3

| Courses | Credits | Code | Prerequisites / (Corequisites) | Type |
| :---: | :---: | :---: | :---: | :---: |
| Agricultural Economics and Marketing | $r$ |  | Mathematics 1 | R |
| Computer Programming | r |  | Mathematics 1 | B |
| Computer Programming Practice | 1 |  | (Computer Programming) | B |
| General Agricultural Machinery | r |  | - | R |
| General Agricultural Machinery Workshop | 1 |  | (General Agricultural Machinery) | R |
| Fundamentals of Electrical Engineering 1 | r |  | Physics 2 | R |
| Fundamentals of Electrical Engineering 1 Lab | 1 |  | (Fundamentals of Electrical Engineering) | R |
| Engineering Experiments Design and Analysis | r |  | Engineering Statistics | R |
| Engineering Experiments Design and Analysis Practice | 1 |  | (Design and Analysis) | R |
| Industrial Drawing 2 | 1 |  | Industrial Drawing 1 | R |
| Industrial Drawing 2 Practice | 1 |  | (Drawing 2) | R |
| Islamic Thought 2 | Y |  | - | G |
| Total Credits | 19 |  |  |  |

## Term 4

| Courses | Credits | Code | Prerequisites / (Corequisites) | Type |
| :--- | :--- | :--- | :--- | :--- |
| Agricultural Mechanization | $r$ |  | Agricultural Machinery | R |
| Microeconomics | $r$ |  | Mathematics 1 | R |
| Simulation Principles | $r$ |  | Mathematics 1 | R |
| Fundamentals Renewable Energy <br> Sources | $r$ |  | - | R |
| Principles of Accounting and Cost <br> Finding | $r$ |  | - | R |
| Welding and Sheet Metal Workshop |  |  | R |  |
| Persian Language | $r$ |  | - | G |
| Total Credits | 19 |  |  |  |

## Term 5

| Courses | Credits | Code | Prerequisites / (Corequisites) | Type |
| :--- | :--- | :--- | :--- | :--- |
| Fundamentals of Energy Management | r |  |  | R |
| Food Processing Machinery and <br> Equipment | $r$ |  |  | R |
| Energy Audit |  |  |  | R |
| Decision Making Support Systems | r |  |  | R |
| Environmental Laws and Policies | r |  |  | R |
| Agriculture and Sustainable <br> Development | $r$ |  |  | R |
| Islamic Ethics |  |  | G |  |
| Physical Education 1 | r |  |  | G |
| Total Credits |  |  |  |  |

## Term 6

| Courses | Credits | Code | Prerequisites / (Corequisites) | Type |
| :--- | :--- | :--- | :--- | :--- |
| Internal Combustion Engines | $r$ |  | - | R |
| Internal Combustion Engines Practice | r |  | (Internal Combustion <br> Engines) | R |
| Energy Economics | $r$ |  | - | R |
| Life Cycle Assessment | $r$ |  | - | R |
| Energy Conservation and Efficiency <br> Methods | $r$ |  | - | R |
| Agricultural Mechanization Operations <br> Research | r |  | Mathematics 1 - Engineering <br> Statistics | R |
| Thematic Commentary of the Quran | r |  | - | G |
| Physical Education 2 | r |  | Physical Education 1 | G |
| Total Credits | IV |  |  |  |

## Summer Course

| Courses | Credits | Code | Prerequisites | Type |
| :--- | :--- | :--- | :--- | :--- |
| Internship | 3 |  | to be offered in the third summer | R |
| Total Credits | 3 |  |  |  |

Term 7

| Courses | Credits | Code | Prerequisites / (Corequisites) | Type |
| :--- | :--- | :--- | :--- | :--- |
| Engineering Economics | r |  | - | R |
| Engineering Management | r |  | - | R |
| Pollution Measurement and Assessment | r |  | - | R |
| Identification and Application of <br> Hydraulic and Pneumatic Systems | $r$ |  | - | E |
| Identification and Application of <br> Hydraulic and Pneumatic Systems <br> Practice | $r$ |  | (Identification and <br> Application of Hydraulic <br> and Pneumatic Systems) | E |
| English for Students of Agricultural <br> Mechanization | r |  | English Language | E |
| Knowledge of Family and Population | r |  | - | G |
| Analytical History of the Early Islam | r |  | - | G |
| Total Credits | $1 \Delta$ |  |  |  |

Term 8

| Courses | Credits | Code | Prerequisites | Type |
| :---: | :---: | :---: | :---: | :---: |
| Project Control Management | r |  | - | R |
| General Horticulture | Y |  | - | R |
| General Horticulture Practice | 1 |  | - | R |
| Environmental Economics | r |  | - | R |
| Repair and Maintenance Engineering | r |  | - | E |
| Repair and Maintenance Engineering Practice | 1 |  | (Repair and Maintenance Engineering) | E |
| Islamic Revolution of Iran | Y |  | - | G |
| Climate Change | Y |  | - | G |
| Total Credits | 10 |  |  |  |
| Course Types: G=General | $\mathrm{B}=$ Basic | R | Required $\quad \mathrm{E}=$ Elective |  |

