



## I: University Requirements: 25 Credit Hours

**A. Remedial Requirements (0 Credit Hours):** Students must sit for placement tests in English, Arabic, and Computer. Students who fail any of these tests are required to take the corresponding remedial course 0900099, 0900097, or 0900096, respectively.

## B. University Compulsory Course Requirements: 12 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab	
0900101	Sports (1)	1	0	3	-
0900103	Swimming	1	0	2	-
0900110	Cultural Development (1)	1	0	2	-
0900111	Military Science*	3	3	0	-
0900130	English Communication Skills (1)	3	3	0	0900099**
0900131	English Communication Skills (2)	3	3	0	0900130

\* Non-Jordanian students may take a university elective course instead.

\*\* Or passing the placement test.

## C. University Elective Course Requirements: 13 Credit Hours

### Humanities: 7 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab	
0900113	Interpersonal and Intercultural Communication	3	3	0	-
0900117	Civic Awareness	3	3	0	-
0900120	Arabic Communication Skills	3	3	0	0900097*
0900140	Appreciation of Art	3	3	0	-
0900141	Appreciation of Music	3	3	0	-
0900163	Modern life skills	3	3	0	-
0900164	Creativity and Innovation	3	3	0	-
0900201	Sports (2)	1	0	3	0900101
0900202	Sports (3)	1	0	3	0900201
0900210	Cultural Development (2)	1	0	2	0900110
0900211	Cultural Development (3)	1	0	2	0900210

\* Or passing the placement test.

### Social and Economic Sciences: 3 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab	
0900114	Civilization and Thought	3	3	0	-
0900115	Social Ethics	3	3	0	-
0900150	Introduction to Economics*	3	3	0	-
0900160	Entrepreneurship and Enterprises	3	3	0	-

\* Not for Business and Finance Students

### Science, Technology, Agriculture and Health: 3 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab	
0900116	Bio-Ethics	3	3	0	-
0900170	Energy and the Environment	3	3	0	-
0900171	Science and Society	3	3	0	-
0900180	Computer Skills*	3	2	2	0900096**

\* Not for Information Technology Students.

\*\* Or passing the placement test.

## II. Faculty Requirements: 27 Credit Hours

### Compulsory Requirements: 27 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab.	
0102200	Engineering Drawing	2	0	3	-
0102460	Engineering Economics	2	2	0	0903281
0104100	Engineering Workshops	1	0	3	-
0104400	Topics in Engineering Profession	2	2	0	0900130
0903101	Calculus (1)	3	3	0	-
0903102	Calculus (2)	3	3	0	0903101
0904101	General Physics (1)	3	3	0	-
0904102	General Physics (2)	3	3	0	0904101
0904107	General Physics Lab (1)	1	0	3	0904101*
0904108	General Physics Lab (2)	1	0	3	0904102*
0401222	Introduction to C++ programming	3	3	0	-
0903381	Numerical Analysis	3	3	0	0903102

(\*) denotes that the prerequisite can be taken concurrently.

## III. Department Requirements: 106 Credit Hours

### A. Compulsory Requirements: 83 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab.	
0104211	Dynamics	3	3	0	0102201
0104212	Mechanics of Materials	3	3	0	0102201
0104220	Thermodynamics (1)	3	3	0	0904101+0902101
0104230	Mechanical Engineering Drawing	2	0	3	0102200
0104316	Mechanics of Materials Lab	1	0	3	0104212
0104320	Fluid Mechanics (1)	3	3	0	0903102+0904102
0104322	Heat Transfer (1)	3	3	0	0104320
0104323	Thermodynamics (2)	3	3	0	0104220
0104324	Fluid Mechanics (2)	3	3	0	0104320
0104326	Fluids Mechanics Lab	1	0	3	0104320
0104330	Theory of Machines	3	3	0	0104211+0104230
0104350	Materials Science	3	3	0	0904101
0104352	Manufacturing Processes	3	3	0	0104100+0104350
0104356	Materials and manufacturing Lab	1	0	3	0104350+0104352
0104410	Mechanical Vibrations	3	3	0	0903102+0104211
0104416	Mechanical Vibrations Lab	1	0	3	0104410
0104421	Energy Conversion Systems	3	3	0	0104323
0104422	Heat transfer (2)	3	3	0	0104322
0104423	Heating, Ventilation and Air-Conditioning	3	3	0	0104322+0104323
0104426	Thermal Lab	1	0	3	0104322+0104323
0104431	Mechanical Design (1)	3	3	0	0104212
0104432	Mechanical Design (2)	3	3	0	0104431+ 0104330
0104433	Exercise in design	1	3	0	0104432
0104440	Engineering Instrumentation & Measurements	2	2	0	0104320+ 0903102
0104442	Automatic Control	3	3	0	0104410
0104546	Engineering measurements and control Lab	1	0	3	0104440+ 0104442
0104490	Engineering Training	3	-	-	Completion of 120 Cr. Hr.

0104520	Internal Combustion Engines	3	3	0	0104323
0104521	Renewable Energy	3	3	0	0104421
0104531	Machines Dynamics	3	3	0	0104330
0104532	Computer Aided Design	3	3	0	0104432+0903381
0104543	Introduction to Mechatronics Systems	3	3	0	0104442
0104591	Graduation Project (1)	1	-	-	Completion of 120 Cr. Hr.
0104592	Graduation Project (2)	2	-	-	0104591

### B. Electives Requirements: 6 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab.	
0104522	Automotive Engineering	3	3	0	0104330+0104410+0104520
0104527	Advanced Solar Energy	3	3	0	0104423
0104530	Finite Element Analysis	3	3	0	0104532+0903381
0104551	Mechanics of Composite Materials	3	3	0	0104212+0104352
0104590	Special Topics in Mechanical Engineering	3	3	0	Department Approval

### C. Ancillary Requirements: 17 Credit Hours

Course No	Course Title	Credit Hours	Contact Hours		Prerequisite
			Lecture	Lab.	
0102201	Statics	3	3	0	0903101+0904101
0103318	Introduction to Electrical Engineering	3	3	0	0904102
0103319	Electrical Machines Lab for Mechanical Engineers	1	0	3	0103318
0902101	General Chemistry (1)	3	3	0	-
0902107	General Chemistry Lab (1)	1	0	3	0902101*
0903201	Applied Math for Engineering (1)	3	3	0	0903102
0903301	Applied Math for Engineering (2)	3	3	0	0903201

(\*) denotes that the prerequisite can be taken concurrently.

### IV. Free Electives: 6 Credit Hours

Students may choose any course(s) offered by the University in accordance with University regulations.