

Engineering
Mechanical Engineering

Study Program : Bachelor
Study Plan Type : Major
Academic Year : 2022

The requirements to obtain a Bachelor degree is :-

* The minimum requirements to get a Bachelor degree in / Mechanical Engineering / is to pass 160 credit hours, according to this study plan.

* The credit hours are distributed to get a Bachelor degree as follows :-

	Number of credit hours
University Requirements	24.000
Compulsory	18.000
Elective	6.000
Faculty Requirements	33.000
Compulsory	33.000
Specialization Requirments	103.000
Compulsory	88.000
Elective	15.000
Pre-requist Courses	0.000
	0.000
Total :	160.000

University Requirements Credit Hours : 24
Requirement type : Compulsory Credit Hours :18

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
2116011101	Arabic Communication Skills	3.000	3.000	0.000	121601099	online learning
2116021101	English Communication Skills	3.000	3.000	0.000	121602099	online learning
2214041117	Military Science	3.000	3.000			online learning
1714041118	National Education	3.000	3.000	0.000		online learning
2114041123	Leadership and Social Responsibility	2.000	2.000	0.000		online learning
2114041124	Enterpreneurship and Innovation	2.000	2.000	0.000		online learning
2114041125	Life Skills	2.000	2.000	0.000		online learning

University Requirements Credit Hours : 24
Requirement type : Elective Credit Hours :6

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
1804001128	Cyber Hygiene	3.000	3.000	0.000	110108099	in class
2210031100	digital culture	3.000	3.000	0.000		
1916033201	Italian Language (2)	3.000	3.000	0.000	1716031101	in class
1916034101	Russian Language (1)	3.000	3.000	0.000		online learning
1916034102	Russian Language (2)	3.000	3.000	0.000		
1916034201	Japanese (2)	3.000	3.000	0.000	1716031102	in class
1916035101	Turkish Language (1)	3.000	3.000	0.000		in class
1916036101	Korean Language (1)	3.000	3.000	0.000		in class
1916036102	Korean Language(2)	3.000	3.000	0.000	1916036101	
1916037101	German Language (1)	3.000	3.000	0.000		in class
1916038101	Chinese Language (1)	3.000	3.000			online learning
1916039101	Polish Language (1)	3.000	3.000	0.000		in class
1714041101	University Life of Student	3.000	3.000			online learning
1714041102	Introduction to Psychcology	3.000	3.000			online learning
1714041104	Family and Child Education	3.000	3.000			online learning
1714041107	Citizenship and Human Rights	3.000	3.000			in class
1714041110	Islam Current Issues	3.000	3.000			in class
1714041111	Islamic Thought	3.000	3.000			online learning
1714041112	Jerusalem : Histroy and Civilization	3.000	3.000			in class
1714041113	Citizenship and Human Rights	3.000	3.000	0.000		online learning
1714041114	Histroy and Civilization of Jordan	3.000	3.000			online learning
1714041115	Sociology	3.000	3.000			in class
1714041116	Archaeology and Tourism	3.000	3.000			online learning
1714041120	Economic and Management Science	3.000	3.000			

University Requirements Credit Hours : 24
Requirement type : Elective Credit Hours :6

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
1714041121	Law and Ordering of Our Life	3.000	3.000			online learning
1714041122	Principles of Sign Language	3.000	3.000			in class
1714041126	Humanistic Moral and Values Education	3.000	3.000			online learning
1714041127	Conflict Resolution and Accept Others	3.000	3.000			online learning
1714041128	Culultural Heritage in Jordan	3.000	3.000			
1914041130	Integrity Transperancy and anti - Corruption	3.000	3.000	0.000		online learning
1714041193	Palestinian Cause	3.000	3.000			in class
1714041194	Arabic Language and Current Issues	3.000	3.000			online learning
1814041195	Disability and Healthy Community	3.000	3.000			online learning
1814041197	Selected Topics in National Trends	3.000	3.000			
1814041198	Education for Sustainable Development	3.000	3.000			online learning
1814041199	Adjustment and Mental Health	3.000	3.000			online learning
1814041200	Introduction to Education	3.000	3.000			online learning
1914042111	Media Education	3.000	3.000	0.000		online learning
2101081139	Physical Culture	3.000	3.000	0.000		online learning
2201081140	Development and Environment	3.000	3.000	0.000		online learning
0110108104	Energy and its Sources	3.000	3.000	0.000		online learning
0110108113	Biotechnology and Society	3.000	3.000	0.000		online learning
0110108114	Automobile Essentials	3.000	3.000	0.000		
0110108115	Computer Ethics	3.000	3.000	0.000		blended learning
0110108130	Health and Nutrients	3.000	3.000	0.000		online learning
0110108131	Health Education and First Aid	3.000	3.000	0.000		online learning
0110108132	Sport and Health	3.000	3.000	0.000		online learning

University Requirements Credit Hours : 24
Requirement type : Elective Credit Hours :6

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
0140108134	Ethics in Natural Science	3.000	3.000	0.000		online learning
0170108135	Reproductive Health	3.000	3.000	0.000		online learning
0140108166	Pharmaceutical Edification	3.000	3.000	0.000		
0121601105	Applied Arabic Language	3.000	3.000			in class
0121602102	Applied English Language	3.000	3.000	0.000		blended learning
0121602103	Technical Translation	3.000	3.000	0.000		blended learning
0141603101	Italian Language	3.000	3.000			in class
0151603102	Japanese Language (Level 1)	3.000	3.000	0.000		in class
0121603201	Spanish Language (1)	3.000	3.000			blended learning

Faculty Requirements Credit Hours : 33
Requirement type : Compulsory Credit Hours :33

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Course Type
0110101102	Calculus (2)	3.000	3.000	0.000	110108101	blended learning
0110101201	Calculus (3)	3.000	3.000	0.000	110101102	in class
0110101203	Ordinary Differential Equations (1)	3.000	3.000	0.000	110101102	in class
0110102101	General Physics (1)	3.000	3.000	0.000		
0110102102	General Physics (2)	3.000	3.000	0.000	1701081136	in class
0110102103	General Physics Laboratory (1)	1.000	0.000	3.000	1701081136 synchronous	in class
0110103107	Basics of General Chemistry	3.000	3.000	0.000		
0110103108	Basics of General Chemistry Laboratory	1.000	0.000	3.000	110103107 synchronous OR 1701081137 synchronous	in class
0110108101	Calculus (1)	3.000	3.000	0.000		online learning
0110400101	Engineering Workshop	1.000	0.500	2.000		blended learning
0110400102	Computer Programming	3.000	3.000	0.000	110108099	in class
0110400201	Manual Engineering Drawing	2.000	1.000	3.000		in class
0110400202	Computer Aided Engineering Drawing	1.000	0.000	3.000	110400201	in class
0110400203	Ethics and Communication Skills	3.000	3.000	0.000	111405110 OR 121602101	blended learning

Specialization Requirments Credit Hours : 103
Requirement type : Compulsory Credit Hours :88

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
1704001303	Numerical Analysis	3.000	3.000	0.000	(110101203) AND (110400102 OR 110108112)	in class
2104021230	Strength of Materials (1)	3.000	3.000	0.000	110401211	blended learning
2104021241	Mechanical Drawing	1.000	0.000	3.000	110400202	blended learning
2104021321	Thermodynamics (1)	3.000	3.000	0.000	110102101 AND 110103107	in class
2104021322	Thermodynamics (2)	3.000	3.000	0.000	2104021321	in class
2104021330	Strength of Materials Lab	1.000	0.000	3.000	(2104051312 OR 2104011212) OR 2104021230	in class
2104021332	Manufacturing Processes	3.000	3.000	0.000	2104021230 AND 2104031352	in class
2104021341	Machine Design (1)	3.000	3.000	0.000	2104021330	in class
2104021342	Theory of Machines	3.000	3.000	0.000	110406260 AND 110402231	in class
2104021401	Engineering Measurements	3.000	3.000	0.000	(110101102 AND 110403242) AND 110406229	in class
2104021412	Fluid power system	3.000	3.000	0.000	110402310	in class
2104021421	Heat Transfer	3.000	3.000	0.000	2104021321 AND 110402310	in class
2104021422	Thermal Science Lab (1)	1.000	0.000	3.000	2104021322 AND 2104021421	in class
2104021431	Mechanical Vibrations	3.000	3.000	0.000	2104021342 AND 110101201	in class
2104021441	Machine Design (2)	3.000	3.000	0.000	2104021341 AND 2104021342	in class
2104021451	Automotive Technology	3.000	3.000	0.000	2104021322 AND 2104021342	in class
2104021541	Electromechanical Systems	3.000	3.000	0.000	2104021401	in class
2104021542	Engineering Measurements Lab	1.000	0.000	3.000	110409260 AND 2104021541 synchronous	in class
2104021543	Computer Aided Design and Manufacturing	3.000	3.000	0.000	2104021241 AND 2104021341	in class
2104021550	Thermal Science Lab (2)	1.000	0.000	3.000	2104021551 AND 2104021451	in class
2104021551	HVAC (Heating, Ventilation and Air-Conditioning)	3.000	3.000	0.000	2104021421 AND 2104021322	in class

Specialization Requirments Credit Hours : 103
Requirement type : Compulsory Credit Hours :88

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
2104021572	Graduation Project (1)	1.000	0.000	3.000	2104021322 AND 2104021341	in class
2104021573	Graduation Project (2)	2.000	0.000	6.000	2104021572	in class
2004021599	Practical Training	3.000	0.000	0.000	110400203	in class
2104031302	Engineering Economy	2.000	2.000	0.000	110101102	online learning
2104031352	Material Science	3.000	3.000	0.000	110103107	in class
0110401211	Statics	3.000	3.000	0.000	110102101 AND 110108101	in class
0110402231	Dynamics	3.000	3.000		110401211	blended learning
0110402310	Fluid Mechanics (1)	3.000	3.000		110101203	in class
0110402313	Fluid Mechanics Lab	1.000	0.000	3.000	110402310	in class
0110402434	Control Systems	3.000	3.000		110402433	in class
0110402535	Vibration and Control Lab	1.000	0.000	3.000	110402434	in class
0110403242	Statistics and Probabilities	3.000	3.000		110101102	in class
0110406229	Fundamentals of Electrical Circuits	3.000	3.000	0.000	110102102 AND 110101102	in class
0110406260	Applied Mathematics	3.000	3.000	0.000	110101203	in class
0110409260	Fundamentals of Electrical Circuits Lab.	1.000	0.000	3.000	110102103 AND 110406229	in class

Specialization Requirments Credit Hours : 103
Requirement type : Elective Credit Hours :15

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
2104021411	Turbo-machinery	3.000	3.000	0.000	110402310 AND 2104021322	in class
2104021433	Composite Materials	3.000	3.000	0.000	2104021230	in class
2104021452	Design of Thermal Systems	3.000	3.000	0.000	2104021322	in class
2104021461	Energy Conservation	3.000	3.000	0.000	2104021322	in class
2104021533	Strength of Materials (2)	3.000	3.000	0.000	2104021341	in class
2104021534	Flight Mechanics	3.000	3.000	0.000	110402310	
2104021535	Green Biomaterials	3.000	3.000	0.000	2104021341 AND 2104031352	
2104021544	System Dynamics and Modeling	3.000	3.000	0.000	110402434 AND 2104021421	
0110402514	Fluid Mechanics (2)	3.000	3.000		110402310	
0110402527	Heat Transfer (2)	3.000	3.000		110402324	
0110402531	Finite Elements Methods for Machine Design	3.000	3.000		110402303 AND 110402447	in class
0110402552	Building Services	3.000	3.000		110402310	blended learning
0110402553	Refrigeration Systems	3.000	3.000		110402222	in class
0110402564	Renewable Energy	3.000	3.000		110402324	in class
0110402571	Special Topics in Mechanical Engineering	3.000	3.000			online learning

Courses - Not Allowed To Study Credit Hours : 0
Requirement type : Credit Hours :0

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
0110108112	Computer Programming	3.000	3.000	0.000	(1001103 AND 1001104) OR (110108099 OR 1011100)	blended learning

Pre-Requist Courses Credit Hours : 0
Requirement type : Credit Hours :0

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
0001001096	Computer Skills Test	0.000	0.000	0.000		in class
0110108099	Computer Skills/ Prerequisite	3.000	3.000	0.000	1001096	online learning
0002110096	Arabic Placement Test	0.000	0.000	0.000		in class
0002120096	English Placement Test	0.000	0.000	0.000		in class
0111405098	Arabic Language / Pre-requisite	3.000	3.000	0.000	2110096	
0111405099	English Language/ pre-requisite	3.000	3.000	0.000	2120096	

free study materials are (3) credit hours, The student chooses it from any of the courses offered by the university departments.