

Electrical Engineering Department
Power & Control Track Curriculum
Effective year 2017

Degree Requirement (163) Credit Hours.

1. University Requirements (27 Credit Hours):

1-a) Prerequisite Requirements (9 Credit Hours):

Subject Number	Subject	Credit Hours	Prerequisite
0304096	Computer Skills Exam	0	-
0304099	Computer Skills (99)	3	0304096
1801096	Arabic Language Exam	0	-
1801099	Arabic Language (99)	3	1801096
1802096	English Language Exam	0	-
1802099	English Language (99)	3	1802096

1-b) University Compulsory Requirements Courses (12 Credit Hours):

Subject Number	Subject	Credit Hours	Prerequisite
0101173	Military Science	3	-
0605105	National Education	3	-
1801101	Arabic Language (1)	3	1801099
1802101	English Language (1)	3	1802099

1-c) University Elective Requirements Courses- First Field (6 Credit Hours):

Subject Number	Subject	Credit Hours	Prerequisite
0201102	Arabic Language (Literary Tasting)	3	-
0209107	Italian language (1)	3	-
0209109	French Language (1)	3	-
0500100	Islamic Culture	3	-
0500103	Human Right in Islam	3	-
0500105	Islam thoughts and life	3	-
0500106	Modern Islamic issues	3	-
0706100	Law In our Lives	3	-
0803101	Educational Principles	3	-
0801103	Environmental Education	3	-
0809101	Principles of Physiology	3	-
1301100	Principles of Physical Education	3	-
1802102	English Language (2)	3	1802101

1-d) University Elective Requirements Courses- Second Field (6 Credit Hours):

Subject Number	Subject	Credit Hours	Prerequisite
1601104	Introduction to Domestic Violence	3	-
1602104	Geography of Jordan	3	-
1603102	Tourism in Jordan	3	-
1603103	Archologies of Jordan and Palestine in Ancient Times	3	-
1604102	Islamic Civilization	3	-
1604104	Jerusalem in Arabic and Islamic History	3	-
1605101	Introduction to politics science	3	-
1605103	Contemporary international and regional issues	3	-
2100100	Work Ethics	3	-
2101102	Developing innovative work skills	3	-
2101103	Developing the skills of preparing and writing administrative reports	3	-
2101104	Managerial skills	3	-
2102101	Fundamentals of Management (Non-Management Students)	3	-
2104100	Introduction to Economics (Non-Management Students)	3	-
2109103	Life Communication Skills	3	-

1-e) University Elective Requirements Courses- Third Field (6 Credit Hours):

Subject Number	Subject	Credit Hours	Prerequisite
0304112	Computer Skills(2)	3	0304099
0307110	Libraries and Information	3	-
0401121	Principles of General Electricity	3	-
0402120	Principles in Automotive Mechanics and Maintenance	3	-
0403120	Traffic Safety	3	-
0405121	Principles of computer operation and maintenance	3	-
1101108	Ornamental plants and home garden	3	-
1401100	Health culture	3	-
2200100	Internet and social media applications	3	-

2.Faculty Compulsory Requirements Courses (29 Credit Hours):

Subject Number	Subject	Credit Hours	Prerequisite
0301101	Calculus (1)	3	-
0301102	Calculus (2)	3	0301101
0301203	Ordinary Differential Equation	3	0301102
0302101	General Physics (1)	3	-
0302102	General Physics (2)	3	0302101
0302111	General Physics laboratory (1)	1	0302101
0302112	General Physics laboratory (2)	1	0302102 or with
0303101	General Chemistry (1)	3	-
0303105	General Chemistry Laboratory (1)	1	0303101 or with
0402110	Engineering Workshop	1	-
0403198	Engineering Drawing	2	-
0403209	Computer Drawing by computer	1	0403198
0403302	Engineering Economy	3	0301203
0404200	Communication Skills	1	-

3. Department Compulsory Requirements Courses (54 Credit Hours):

Subject Number	Subject	Credit Hours	Prerequisite
0401200	Engineering analysis	3	0301203
0401109	Probability Theory & Random Processes	3	
0401208	Signals and Systems	3	0401211
0401209	Numerical methods and data analysis	3	
0401211	Electric Circuits 1	3	0302102
0401212	Electric Circuits 2	3	0401211
0401219	Electrical Circuits & Filters LAB.	1	0401211 or Co-Requisite
0401252	Electromagnetics	3	0401200
0401261	Electronics (1)	3	0401211
0401362	Electronics (2)	3	0401261
0401368	Electronics LAB	1	0401219 and 0401362
0401401	Field Training	3	Pass 110 CHs
0401441	Automatic Control	3	0401208
0401442	Measurements & Instrumentation	3	0401212
0401448	Measurements & Instrumentation LAB	1	0401442 and 0401219
0401500	Graduation Project (1)	0	Pass 120 CHs
0401591	Graduation Project (2)	3	0401500
0402203	Dynamics	3	0403200
0403200	Statics	3	0302102 and 0403198
0405271	Digital Systems Design	3	
0405476	Microprocessors	3	0405271

4. Specialty Compulsory Requirements Courses (44 Credit Hours):

Subject Number	Subject	Credit Hours	Prerequisite
0401205	Electrical Materials	3	0302102
0401323	Communication Principles	3	0401208
0401372	Electric Machines (1)	3	0401212
0401376	Electric Machines (2)	3	0401372
0401447	Machine Controllers and Digital Control Lab.	1	0401543
0401465	Industrial Electronics	3	0401376 and 0401362
0401466	Industrial Electronics LAB	1	0401465 and 0401479
0401479	Electric Machines Lab	1	0401376
0401481	Power systems (1)	3	0401376
0401482	Power systems (2)	3	0401481
0401483	High voltage	3	0401482
0401484	Power Systems Programing Laboratory	1	0401482 or Co-Requisite
0401488	Power systems LAB	1	0401482 and 0401479
0401543	Digital Automatic Control	3	0401441
0401548	Automatic Control Lab	1	0401441
0401556	Programmable Logic Controllers	3	0401543
0401582	Power Transmission and Distribution: Planning and Design	3	0401482
0401585	Protection and High voltage Lab	1	0401483 and 0401587
0401587	Power System Protection	3	0401482
0405480	Digital Design and Microprocessor LAB	1	0405476

5.Specialty Elective Requirements Courses (9 Credit Hours):

Subject Number	Subject	Credit Hours	Prerequisite
0401540	Machines controllers	3	0401465 and 0405476
0401444	Power Systems Simulation and Modeling	3	0401441
0401480	Renewable Energy Systems	3	0401464
0401486	Power Stations and Smart Grids	3	0401481
0401490	Introduction to IoT	3	
0401546	Industrial Processes Control		0401441
0401550	Electrical Wiring & Illumination	3	0401212
0401579	Power Stations Design	3	0401482
0401580	Power Stations	3	0401482
0401583	Electrical Energy Management	3	0401482
0401584	Reliability and economics of power systems	3	0401482
0401592	Special Topics in Power and Control Engineering	3	0401482
0405112	Programming for Engineers	3	0304099

