Mechatronics Engineering

University Compulsory Requirements

Course Nr.	Course name	Weight in Credit Hours
4 001	Arabic Language	3
4 002	Islamic Culture	3
4 003	English Language 1	3
4 320	Modern History of Palestine	3
5 055	Computer And Prog. Principles	3
5 051	Intensive English	0
5 052	Remedial English	0
5 054	Remedial Computer	0
5 073	Effective English Language Use	2

University Elective Requirements

Course Nr.	Course name	Weight in Credit Hours
4 321	Development in the Arabic World	3
4 322	Contemporary Problems	3
4 308	Hebrew Language	3
4 323	French Language	3
4 325	Spanish Language	3
4 326	German Language	3
4 413	Law in Society Service	3
4 622	Democracy, Human Rights, & Human International Law	3
4 626	The History of Science in Arab & Islam	3
5 440	Home Garden	3

College Requirements

Course Nr.	Course name	Weight in Credit Hours
5 059	Computer Programming	3
5 060	Engineering Drawing	2
5 061	Engineering Workshop	2
4 015	Methods of Scientific Research	2
4 011	Eng. Economics & Management	3
4 004	Calculus 1	3
4 005	Calculus 2	3
4 006	Physics 1	3

4 007	Physics Lab 1	1
4 070	English Language 2	3
4 008	Chemistry 1	3
4 009	Chemistry Lab 1	1

Department Requirements

Course Nr.	Course name	Weight in Credit Hours
4 068	Physics 2	3
4 069	Physics Lab 2	1
4 043	Differentia Equations 1	3
5 087	Linear Algebra & Numerical Methods	3
4 328	Math for Mechanical	3
5 088	Electromechanical Workshop	2
5 089	Mechanical Drawing Using	2
4 024	Applied Mechanics(Statics)	3
4 035	Materials Science	3
4 027	Strength of Materials	3
5 090	Analysis of Electrical Circuits	3
5 091	Applied Electronics	3
5 092	Applications in Circuits and Electronics	3
4 025	Applied Mechanics (Dyn.)	3
4 046	Theory of Machines	3
4 350	Mechanics Lab.	1
5 093	Mechanical	3
4 031	Fluid Mechanics	3
4 028	Thermodynamics1	3
4 037	Heat Transfer	3
4 341	Measurement Sys. and Sensors	3
4 030	Manufacturing Processes	3
4 048	Machine Design 1	3
4 044	Control Systems	3
5 104	Project Management	3

Program Compulsory Requirements

Course Nr.	Course name	Weight in Credit Hours
4 339	Control 2	3
4 634	Control Systems	1
5 094	Digital Design for Mechatronics	3
4 335	Digital Design Lab.	1
4 355	Introduction to Electrical Machines	3
4 356	Electrical Machines lab	1
4 633	Electrical Machines & Drives	3
5 095	Microcontroller	3
5 096	Microcontroller Lab	1
5 097	Mechatronics Systems Interfacing	3
5 098	Programmable Logic Controllers With Applications	2
4 353	Industrial Hydraulics	3
4 404	Fluid Mechnics Lab	1
4 635	Advanced Control	3
5 099	Advanced Control lab	1
5 238	Design of Mechatronics Systems	2
4 132	Field Training 1	0
4 133	Field Training 2	0
4 304	Introduction to Graduation Project	1
4 305	Graduation Project	3
5 239	Mechatronics industrial application	2

Program Elective Requirements

Course Nr.	Course name	Weight in Credit Hours
4 022	Computer Aided Manufacturing	3
4 411	Robotics	3
4 412	Simulation	3
4 333	Computer Aided Design	3
4 058	Machine Design II	3
4 045	Hydraulic Machines	3
5 100	Automotive Control Systems	3
4 020	Energy Conversion Systems	3
5 028	Special Topics	3