

Ministry of Higher Education and Scientific Research
University of Mosul
College of Engineering
Department of Electrical Engineering



Courses Description

Department of Electrical Engineering

Electronic and Communications

2018-2019

Academic Program Description form

University Name: University of Mosul

Faculty / Institute: College of Engineering

Scientific Department: Electrical Engineering

Academic or Professional Program Name:

B.Sc. Electrical Engineering / Electronics and Communication

B.Sc. Electrical Engineering / Power and Machines

Final Certificate Name: B.Sc. in Electrical Engineering

Academic System: Courses System + Bologna Process

Description Preparation Date: March, 2024

File Completion Date: March, 2024

Signature:

Head of Department Name:

Dr. Mohammad Tariq Yaseen

Date: March, 2024

Signature:

Scientific Associate Name:

Dr. Ayman T.Hameed

Date: March, 2024

The file is checked by: Department of Quality Assurance and University Performance

Director of Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

a) Undergraduate

Annual / College of Engineering / University of Mosul / First Class for the academic year 2018-2019 / Department of Electrical Engineering

Course No.	Subject	First Term			Second Term			Units No.
		Theo.	Pract.	App	Theo.	Pract.	App.	
EE 101	Human Rights and Democracy	1	-	-	1	-	-	2
EE102	Digital Techniques	2	-	1	2	-	1	4
EE 103	Engineering Drawing	-	3	-	-	3	-	2
EE 104	Computer Science	2	2	-	2	2	-	6
EE 105	Principle of Mechanical Eng.	3	-	-	3	-	-	6
EE 106	Mathematics	3	-	1	3	-	1	6
EE 107	Electronics Physics	2	-	1	2	-	1	4
EE 108	Basics of Electrical Eng.	3	-	1	3	-	1	6
EE 109	Laboratories	-	3	-	-	3	-	2
EE 110		1	-	-	1	-	-	
Total		18	17	8	4	17	8	4
		29			29			

Annual / College of Engineering / University of Mosul / Second Class for the academic year 2018-2019 / Department of
Electrical Engineering / Electronics & Communications

Course No.	Subject	First Term			Second Term			Units No.
		Theo.	Pract.	App	Theo.	Pract.	App.	
EEC 201	Management & Industrial Safety	2	-	-	2	-	-	4
EEC 202	Mathematics II	3	-	1	3	-	1	6
EEC 203	Computer Programming	2	2	-	2	2	-	6
EEC 204	Electromagnetic Fields	2	-	1	2	-	1	4
EEC 205	Electronics I	2	-	1	2	-	1	4
EEC 206	Communications Principles	3	-	1	3	-	1	6
EEC 207	Power & Machines	2	-	1	2	-	1	4
EEC 208	Elective Subjects (Electrical Networks)	2	-	1	2	-	1	4
EEC 209	Electronics & Communications Lab.	-	3	-	-	3	-	4
Total		18	5	6	18	5	6	40
		29			29			

Annual / College of Engineering / University of Mosul / Third Class for the academic year 2018-2019 / Department of
Electrical Engineering / Electronics & Communications

Course No.	Subject	First Term			Second Term			Units No.
		Theo.	Pract.	App	Theo.	Pract.	App.	
EEC 301	Statistics & Engineering Economics	2	-	-	2	-	-	4
EEC 302	Engineering Analysis	2	-	1	2	-	1	4
EEC 303	Radiation & Propagation	2	-	1	2	-	1	4
EEC 304	Digital Communications	3	-	1	3	-	1	6
EEC 305	Electronics II	2	-	1	2	-	1	4
EEC 306	Digital Electronics	2	-	1	2	-	1	4
EEC 307	Computer Engineering	2	-	1	2	-	1	4
EEC 308	Elective Subjects (Measurements)	2	-	1	2	-	1	4
EEC 309	Electronics & Communications Lab.	-	6	-	-	6	-	4
Total		17	17	6	7	17	6	7
		29			30			30

Note: The student is required to complete the summer training after the end of the second semester of the third level

Annual / College of Engineering / University of Mosul / Fourth class for the academic year 2018-2019 / Department of
Electrical Engineering / Electronics & Communications

Course No.	Subject	First Term			Second Term			Units No.
		Theo.	Pract.	App.	Theo.	Pract.	App.	
EEC 401	Engineering Project	1	3	-	1	3	-	4
EEC 402	Engineering Control	3	-	1	3	-	1	6
EEC 403	Communication Engineering	3	-	-	3	-	-	6
EEC 404	Digital Signal Processing (DSP)	2	-	1	2	-	1	4
EEC 405	Microelectronic	2	-	1	2	-	1	4
EEC 406	Computer Networks	2	-	1	2	-	1	4
EEC 407	Elective Subjects (Computer interfacing systems)	2	-	-	2	-	-	4
EEC 408	Laboratories	-	6	-	-	6	-	4
Total		15	9	4	15	9	4	36
		28			28			

b) Postgraduate

	Subject	Type	Hours	Units	Code
Master	Antennas and Wave (Elective)	Semesters	2	2	EEE644
	Microelectronics (Elective)	Semesters	2	2	EEE 653
	Digital Signal Processing (Compulsory)	Semesters	2	2	EEE652
	Engineering Analysis (Compulsory)	Semesters	2	2	EEE 640
	Modern Control Theory (Compulsory)	Semesters	2	2	EEE 647
	Modeling and Simulation(Compulsory)	Semesters	2	2	EEP 670
	Power Electronics (Compulsory)	Semesters	2	2	EEP 667
	A.C. Machines (Elective)	Semesters	2	2	EEP669
	Power System Analysis (Elective)	Semesters	2	2	EEP683
	Antennas and Wave (Elective)	Semesters	2	2	EEE646
	Microwave Devices (Elective)	Semesters	2	2	
	Computer Networks (Elective)	Semesters	2	2	EEE661
	Programmable Controllers(Compulsory)	Semesters	2	2	EEE680
	English Language II (Compulsory)	Semesters	2	2	
	Scientific Research Methods (Compulsory)	Semesters	1	1	EEE 690
	Electrical Drive (Elective)	Semesters	2	2	EEP 672
Advanced High Voltage (Elective)	Semesters	2	2	EEP 671	
Power System Protection (Elective)	Semesters	2	2		

	Subject	Type	Hours	Units	Code
PhD	Advanced Communication Systems (Elective)	Semesters	2	2	EED709
	CMOS Integrated Circuits (Elective)	Semesters	2	2	
	Advanced Antenna Theory (Elective)	Semesters	2	2	EED708
	Advanced Control Systems (Compulsory)	Semesters	2	2	EED710
	Advanced DSP (Compulsory)	Semesters	2	2	
	Advanced Topics in Electrical (Compulsory)	Semesters	2	2	EED720
	Advanced Electrical Drives (Elective)	Semesters	2	2	EED714
	Flexible A C Transmission System (FACTS) (Elective)	Semesters	2	2	EED706
	Power Systems Stability (Elective)	Semesters	2	2	EED712
	Wave Propagation (Elective)	Semesters	2	2	EED718
	Computer Network Security (Elective)	Semesters	2	2	EED717
	Advanced Microprocessors (Elective)	Semesters	2	2	
	English Language II (Compulsory)	Semesters	2	2	
	Research Methodology (Compulsory)	Semesters	1	1	
	& Advanced Modeling Simulation (Compulsory)	Semesters	2	2	EED701
	Smart Grids and Renewable Energy (Compulsory)	Semesters	2	2	EED711
	Advanced Alternating Machines (Elective)	Semesters	2	2	EE768
	Advanced High Voltage DC (Elective)	Semesters	2	2	
: Modern Protection Systems (Elective)		2	2	EED704	