



Department of Electrical Engineering

1) Foundation:

Department of Electrical Engineering is considered one of the scientific founding departments of University of Technology, where it was established in 1975. It represents a main source of graduates in Electrical, Electronic and Communication engineering specializations to supplement the Iraqi ministries and labor market with efficient and qualified engineers. The department seeks to strengthen the serious cooperation with the ministries and presenting the scientific and engineering supervisions in order to solve the technical problems and implementation the applied projects and researches. The department has been witnessed a large remarkable progress in all fields such as; increasing the a number of the students in both under graduation studies and post graduation studies (Ph.D, M.Sc. and Diploma), teaching and training methods, laboratories, curriculums, research groups, encouraging the researchers for papers publishing, participating in national and international scientific conferences and workshops. Therefore, the department seeks to create a suitable scientific environment for academics, researchers, students and engineering staff by holding weekly seminars and workshops.

The department awards a B.Sc degree in the following specializations:

- 1) Electrical Engineering
- 2) Electronic Engineering
- 3) Communication Engineering

2) Vision:

The vision of the department is to be a distinct department among nationally and globally corresponding engineering departments and to be a beacon in the scientific knowledge to keep up with scientific development and a leader in higher education and scientific research through the preparation of engineering cadres in the fields of electrical engineering in all specialties to serve the community and providing a motivating environment to become an international department in the ranking.

3) Mission:

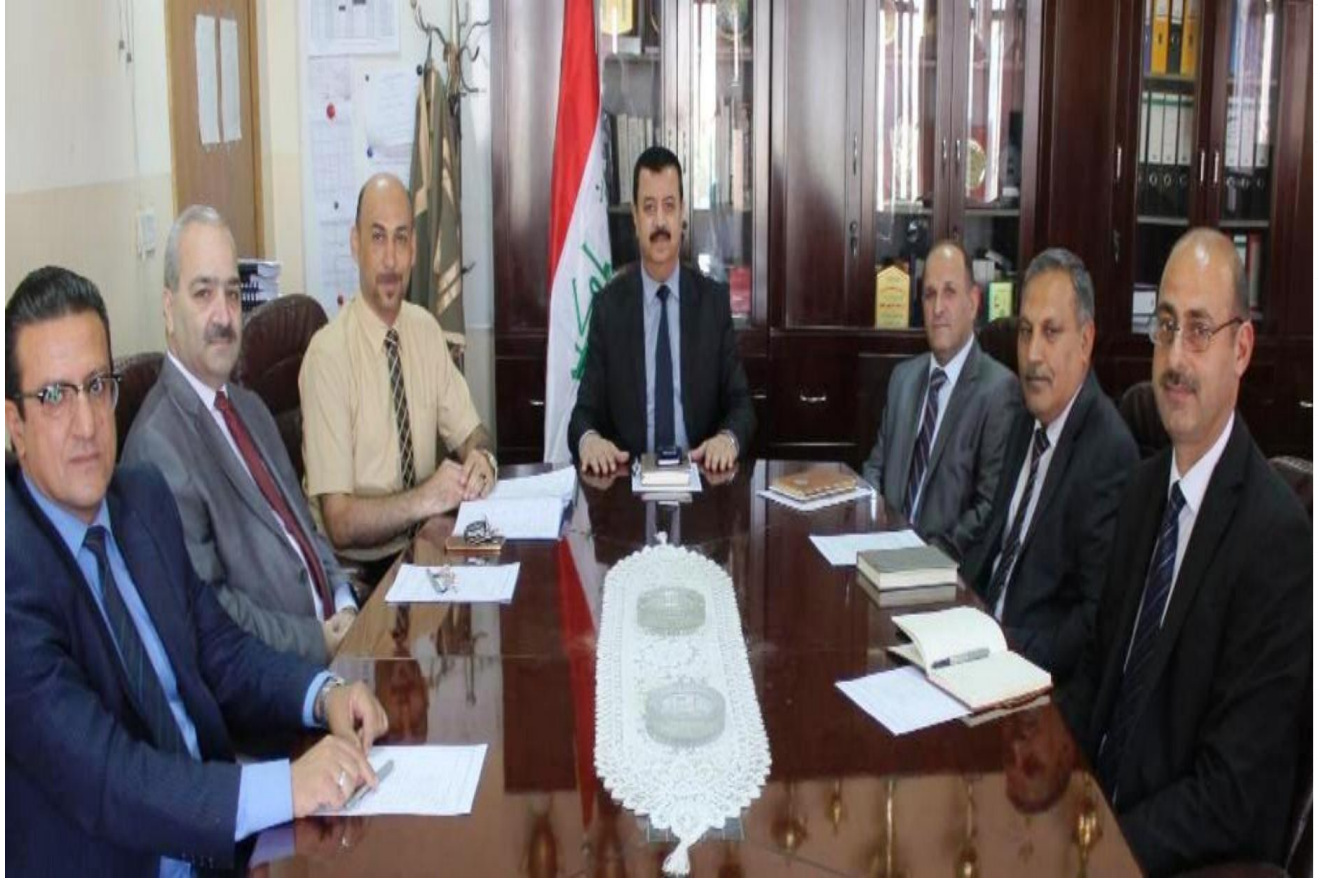
The mission of the department is to prepare and develop national engineering cadres in electrical engineering disciplines qualified academically, pedagogically and professionally which able to serve the community and meets the requirements of the labor market in accordance with quality assurance standards.

4) Objectives:

1. Graduation of advanced engineering staff in all electrical engineering disciplines academically and professionally qualified to meet the needs of the labor market.
2. Provision of distinct university environment for creativity and scientific research.
3. Optimal usage of resources and available possibilities to get the international academic accreditation according to quality assurance standards.
4. Working on the prosperity and development of the community by providing research projects and advisory services which contribute to the solution of the problems and the development of society.
5. Attracting the distinct scientific talents in field of electrical engineering in all specialties locally and internationally to achieve the vision of the department.
6. Strengthening and developing the relations of the department with the corresponding scientific departments locally and internationally and with the related institutions and ministries to service the community.

5) Department Council:

- 1) Assist. Prof. Dr. Dhari Yousif Mahmood
Head of the Department
- 2) Assist. Prof. Dr. Abbas Hussain Issa
Head Assistance for Scientific Affairs
- 3) Dr. Kanaan Ali Jalal
Head Assistance for Administrative Affairs
- 4) Assist. Prof. Dr. Abdul Rahim Thiab Humod
Head of Electrical Engineering Division
- 5) Assist. Prof. Dr. Sinan Majid Abdul-Sattar
Head of Electronic Engineering Division
- 6) Lecturer Sabah Abdul Hasan Ktafa
Council Moderator
- 7) Assist. Prof. Dr. Qusay Abdul Jabbar
Representative of Academic Staff



6) General specializations of undergraduate studies:

- 1) Electrical Engineering.
- 2) Electronic Engineering.
- 3) Communication Engineering (Third & Fourth classes).

7) General specializations of postgraduate studies:

- 1) Ph.D in Electronic and Communication Engineering.
- 2) M.Sc. in Electrical Power Engineering.
- 3) M.Sc. in Electronic and Communication Engineering.
- 4) Diploma in Power Systems Protection.

Curricula Tables

Electrical Engineering Division

First Year (Semester System)

Code	First Semester	Hours / Week			Units
	Subject	Lect.	Lab.	Disc.	
EE11 01	Fundamentals of Electrical Engineering I	2	-	1	2
EE11 02	Electronics Physics I	2	-	-	2
EE11 03	Mathematics I	4	-	1	4
EE11 04	Computer Science	2	2	-	3
EE11 05	Mechanical Engineering I	2	-	-	2
EE11 06	Technical English	2	-	-	2
EE1107	Workshops I	-	4	-	2
EE11 08	Electrical Engineering Lab. I	-	2	-	1
Total		14	8	2	18

Code	Second Semester	Hours / Week			Units
	Subject	Lect.	Lab.	Disc.	
EE12 09	Fundamentals of Electrical Engineering II	2	-	1	2
EE12 10	Electronics Physics II	3	-	-	3
EE12 11	Mathematics II	4	-	1	4
EE12 12	Digital Techniques	2	-	-	2
EE12 13	Mechanical Engineering II	2	-	-	2
EE12 14	Engineering Drawing & Auto CAD	-	4	-	2
EE12 15	Workshops II	-	4	-	2
EE12 16	Electrical Engineering Lab. II	-	2	-	1
Total		13	10	2	18

Second Year (Semester System)

Code	First Semester	Hours / Week			Units
	Subject	Lect.	Lab.	Disc.	
EE21 01	Applied Physics I	3	-	-	3
EE21 02	Mathematics III	4	-	1	4
EE21 03	Computer Programming	2	2	-	3
EE21 04	Electronics I	2	-	1	2
EE21 05	Electromagnetic Fields I	2	-	1	2
EE21 06	Electric Networks I	2	-	1	2
EE21 07	DC Machines	2	-	1	2
EE21 08	Electrical Machines Lab.	-	2	-	1
Total		17	4	5	19

Code	Second Semester	Hours / Week			Units
	Subject	Lect.	Lab.	Disc.	
EE22 09	Applied Physics II	3	-	-	3
EE22 10	Mathematics IV	4	-	1	4
EE22 11	Instrumentation & Measurements	2	-	-	2
EE22 12	Electronics II	2	-	1	2
EE22 13	Electromagnetic Fields II	2	-	1	2
EE22 14	Electric Networks II	2	-	1	2
EE2215	AC Machines I	2	-	1	2
EE2216	Electronics Lab.	-	2	-	1
Total		17	2	5	18

Third Year (Semester System)

Code	First Semester	Hours / Week			Units
	Subject	Lec.	Lab.	Disc.	
EE31 01	Electrical Power Engineering	2	-	-	2
EE31 02	AC Machines II	2	-	1	2
EE31 03	Microprocessor Engineering I	2	-	-	2
EE31 04	Engineering Analysis I	4	-	1	4
EE31 05	Control Engineering I	2	-	1	2
EE31 06	Communication Engineering I	2	-	-	2
EE31 07	Human Rights & Engineering Skills and Ethics	2	-	-	2
EE31 08	Electrical Engineering Lab. III	-	4	-	2
EE31 09	Control Lab.	-	4	-	2
Total		16	8	3	20

Code	Second Semester	Hours / Week			Units
	Subject	Lec.	Lab.	Disc.	
EE32 10	High Voltage Engineering	2	-	-	2
EE32 11	AC Machines III	2	-	1	2
EE32 12	Microprocessor Engineering II	2	-	-	2
EE32 13	Engineering Analysis II	4	-	1	4
EE32 14	Control Engineering II	2	-	1	2
EE32 15	Communication Engineering II	2	-	-	2
EE32 16	Electronics III	2	-	-	2
EE32 17	Electrical Engineering Lab. IV	-	4	-	2
EE32 18	Communication Lab.	-	4	-	2
Total		16	8	3	20

Fourth Year (Semester System)

Code	First Semester	Hours / Week			Units
	Subject	Lec.	Lab.	Disc.	
EE41 01	Final Year Project I	1	2	-	2
EE41 02	Power System Analysis I	3	-	-	3
EE41 03	Elective Subject I	2	-	1	2
EE41 04	AC Machines IV	2	-	1	2
EE41 05	Power Electronics I	2	-	1	2
EE41 06	Electronics IV	2	-	1	2
EE41 07	Industrial Management	2	-	-	2
EE41 08	Electrical Engineering Lab. V	-	4	-	2
Total		14	6	4	17

Code	Second Semester	Hours / Week			Units
	Subject	Lec.	Lab.	Disc.	
EE42 09	Final Year Project II	1	2	-	2
EE42 10	Power System Analysis II	3	-	-	3
EE42 11	Elective Subject II	2	-	1	2
EE42 12	Drives	2	-	1	2
EE4213	Power Electronics II	2	-	1	2
EE42 14	Communication Engineering III	2	-	1	2
EE42 15	Operations Research	2	-	-	2
EE42 16	Electrical Engineering Lab.VI	-	4	-	2
Total		14	6	4	17

Electronic Engineering Division

First Year

Code	First Semester	Hours/Week			CR (Units)
	Subject	Th.	Pra.	Tu.	
ECE111	Technical English I	1			1
ECE112	Mathematics I	3			3
ECE113	Digital Electronic I	2	1	1	2.5
ECE114	Electrical Engineering Fundamentals I	2	2	1	3
ECE115	Solid State Physics I	3		1	3
ECE116	Mechanical Engineering	2			2
ECE117	Computer Science I	1	1		1.5
ECE118	Chemistry I	2			2
ECE119	Workshops I		4		2
		16	8	3	
Total hours per week		27			20

Code	Second Semester	Hours/Week			CR (Units)
	Subject	Th.	Pra.	Tu.	
ECE121	Technical English II	1			1
ECE122	Mathematics II	3			3
ECE123	Analog Electronic I	2	1	1	2.5
ECE124	Electrical Engineering Fundamentals II	2	2	1	3
ECE125	Solid State Physics II	3			3
ECE126	Auto CAD		3		1.5
ECE127	Computer Science II	1	1		1.5
ECE128	Chemistry II	2			2
ECE129	Workshops II		4		2
		14	11	2	
Total hours per week		27			19.5

Second Year

Code	First Semester	Hours/Week			CR (Units)
	Subject	Th.	Pra.	Tu.	
ECE211	Technical English III	1			1
ECE212	Engineering Mathematics I	3		1	3
ECE213	Analog Electronic II	2		1	2
ECE214	Probability & Statistical Engineering I	3			3
ECE215	Electrical Circuits	2		1	2
ECE216	Energy Conversion I	2		1	2
ECE217	Electromagnetic Fields I	2		1	2
ECE218	Computer Programming I	1	1		1.5
ECE219	Electronic & Communication Engineering Lab. I		6		3
		16	7	5	
Total hours per week		28			19.5

Code	Second Semester	Hours/Week			CR (Units)
	Subject	Th.	Pra.	Tu.	
ECE221	Technical English IV	1			1
ECE222	Engineering Mathematics II	3		1	3
ECE223	Digital Electronic II	2		1	2
ECE224	Probability & Statistical Engineering II	3			3
ECE225	Signals & Systems	2		1	2
ECE226	Energy Conversion II	2		1	2
ECE227	Electromagnetic Fields II	2		1	2
ECE228	Computer Programming II	1	1		1.5
ECE229	Electronic & Communication Engineering Lab. II		6		3
		16	7	5	
Total hours per week		28			19.5

Third Year

Code	First Semester	Hours/Week			CR (Units)
	Subject	Th.	Pra.	Tu.	
ECE311	Human Rights	1			1
ECE312	Engineering Analysis I	3		1	3
ECE313	Microelectronic Circuit Design	2		1	2
ECE314	Control Engineering I	2		1	2
ECE315	Information Theory and Coding	2			2
ECE316	Analog Communication	2		1	2
ECE317	Wave Propagation	2			2
ECE318	Instrumentation & Measurements I	2			2
ECE319	Electronic & Communication Engineering Lab. III		8		4
		16	8	4	
Total hours per week		28			20

Code	Second Semester	Hours/Week			CR (Units)
	Subject	Th.	Pra.	Tu.	
ECE321	Democracy	1			1
ECE322	Engineering Analysis II	3		1	3
ECE323	Microprocessor Engineering	2		1	2
ECE324	Control Engineering II	2		1	2
ECE325	Satellite & Navigation	2			2
ECE326	Digital Communication	2		1	2
ECE327	Antennas	2			2
ECE328	Instrumentation & Measurements II	2			2
ECE329	Electronic & Communication Engineering Lab. IV		8		4
		16	8	4	
Total hours per week		28			20

Fourth Year

Code	First Semester	Hours/Week			CR (Units)
	Subject	Th.	Pra.	Tu.	
ECE411	Final Year Project I	1	3		2.5
ECE412	Industrial Management I	2			2
ECE413	Digital Systems' Design	2		1	2
ECE414	Microwave Engineering	2		1	2
ECE415	Digital Signal Processing	2		1	2
ECE416	Artificial Intelligent Systems I	2			2
ECE417	Numerical Methods I	3			3
ECE418	Elective Subject (A)	2			2
ECE419	Electronic & Communication Engineering Lab. V		6		3
		16	9	3	
Total hours per week		28			20.5

Code	Second Semester	Hours/Week			CR (Units)
	Subject	Th.	Pra.	Tu.	
ECE411	Final Year Project II	1	3		2.5
ECE422	Industrial Management II	2			2
ECE423	Microcontrollers	2		1	2
ECE424	Mobile Communication	2		1	2
ECE425	Computer Networks	2		1	2
ECE426	Artificial Intelligent Systems II	2			2
ECE427	Numerical Methods II	3			3
ECE428	Elective Subject (B)	2			2
ECE429	Electronic & Communication Engineering Lab. VI		6		3
		16	9	3	
Total hours per week		28			20.5