Programme Catalogue

College Name	College Abbreviation
Engineering	ENG
Department Name (in English)	Department Abbreviation
Electrical and Computer Engineering	ELCE
Department Name (in Kurdish)	
ئەندازیاریا كارەبا و كومپیوتەر	
Department Name (in Arabic)	
هندسة الكهرباء والحاسبات	
1. Qualification awarded	
Bachelor of Science in Electrical and Computer Engineering	
2. Length of programme	
4 Years	
3. Number of credits	
240 ECTS credits	
4. Level of qualification according to the National Qualification Framework and the European Qualifications Framework	
First cycle, Bachelor's degree	
5. Field(s) of study (e.g. ISCED-F)	
071	
6. Specific admission requirements (if applicable)	
7. Specific arrangements for recognition of prior learning (formal, non-formal and informal) (if applicable)	
The programme may recognize formal credits earned in formal context if these credits are relevant to the programme and confirmed by the Transcript of Records.	
8. Qualification requirements and regulations, including graduation requirements	
Students should successfully complete all the core components and collect 240 ECTS credits	
9. Profile of the programme	

The Electrical and Computer Engineering (ELCE) Department was established within the College of Engineering in August 2006. Its first and main academic programme is the Bachelor of Science in Electrical and Computer Engineering. The programme welcomed its first cohort of students in October 2006.

The programme is designed and regularly reviewed to meet the current and future needs of the Kurdistan Region and Iraq for qualified electrical and computer engineers. The curriculum adheres to ABET requirements and provides a balanced foundation across both electrical and computer engineering fields. Laboratory sessions further strengthen students' design abilities, teamwork, and hands-on technical skills.

The graduation project is a major design component of the programme, promoting creative problem-solving and effective teamwork. Internships, in turn, offer students valuable opportunities to apply their knowledge in real world settings. Internships also strengthen industry connections and help academic staff stay engaged with community needs, many of which can be addressed through students' graduation projects.

Additionally, the programme includes a range of elective courses, allowing students to tailor their education according to their interests and evolving market demands.

10. Programme Educational Objectives

The Program Educational Objectives (POEs) of the Electrical and Computer Engineering department (ELCE) are to prepare graduates who will:

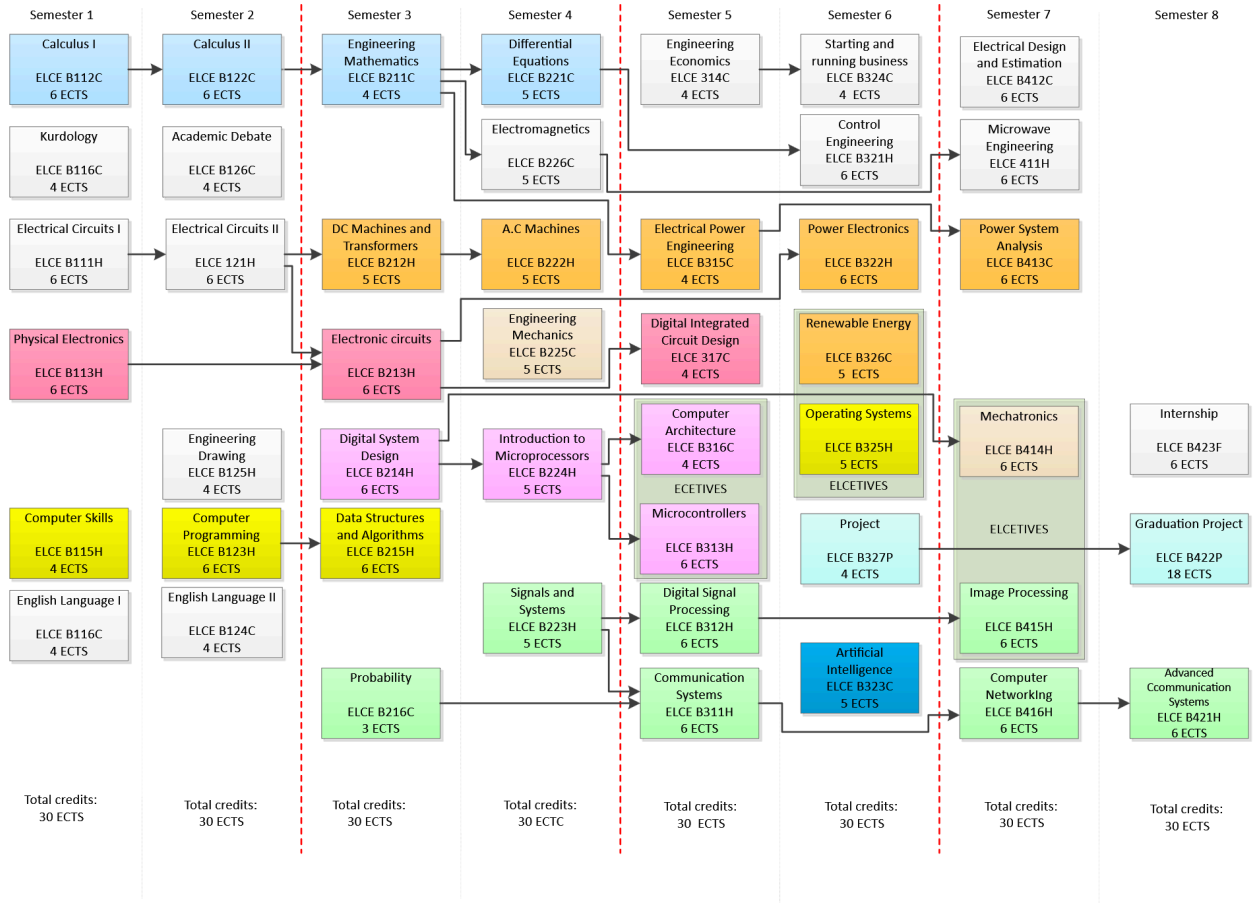
1. demonstrate successful careers in electrical and computer engineering or related disciplines by leveraging technical expertise, analytical skills, and innovation to effectively contribute to their professions.
2. exhibit strong leadership, communication and teamwork skills, enabling them to work effectively within multidisciplinary teams.
3. address real-world problems and improve quality of life while upholding ethical standards and considering the broader societal, environmental, and global implications of engineering decisions.
4. engage in lifelong learning through advanced education, professional development, and certifications or other learning opportunities to adapt to evolving technologies, drive innovation, and contribute to the development of new technologies.

11. Programme learning outcomes

After successfully completing this programme, students should have:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. an ability to communicate effectively with a range of audiences.
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative environment, establish goals, plan tasks, and meet objectives.
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

12. Programme structure diagram with credits



13. Mode of Study

Full time on campus

14. Examination regulations and grading scale

% Points	Grade
90 – 100	Excellent
80 - < 90	Very Good
70 - < 80	Good
60 - < 70	Medium
50 - < 60	Pass
0 - < 50	Fail

The following grading scale is used:

15. Mobility window (if applicable)

16. Work placement(s)/internships (if applicable)

The programme includes a 6 ECTS internship opportunity in semester 8

17. Work-based learning (if applicable)

18. Programme director or equivalent

Serwan Ali Mohammed email: serwan.mohammed@uod.ac

19. Occupational profiles of graduates

Graduates of this programme are equipped with a solid foundation in both electrical and computer engineering. Their technical expertise, problem-solving abilities, and teamwork experience prepare them for diverse careers in industry, research, and technology; while ensuring they can adapt to the evolving technological and industrial demands.

Typical roles for graduates include:

1. Electrical Engineer: Designing, testing, and maintaining electrical systems and equipment in sectors such as energy, construction, manufacturing and renewable energy solutions.
2. Electronics Engineer: Working on circuit design, electronic devices and communication systems.
3. Computer Engineer: Working on hardware-software solutions for applications in consumer electronics and IoT devices.
4. Systems Engineer / Network Engineer: Planning, deploying and maintaining communication networks and IT infrastructure.
5. Research and Development Engineer: Contributing to technological innovation in both electrical and computer engineering fields such as renewable energy, robotics, IoT and artificial intelligence.
6. Entrepreneur / Consultant: Applying engineering knowledge to develop innovative products, provide technical consultancy or launch technology-based initiatives.

20. Access to further studies

Graduates are eligible for further studies at higher diploma programmes or second-cycle (Master's) degrees in relevant disciplines.

21. Academic Staff

Full Name	Qualification	Academic title	Email
Serwan Ali Mohammed	PhD	Lecturer	serwan.mohammed@uod.ac
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Rezheen Rasheed Hussein	MSc	Assist. Lecturer	rezheen.hussein@uod.ac

22. Facilities and Resources (Lecture halls, Labs, etc.)

The programme uses these facilities:

Type	Quantity	Capacity (students)	Type of use	Equipment included
Lecture Hall	4	35	Dedicated	Projector, whiteboard
Lecture Hall	2	50	Dedicated	Projector, whiteboard
Electronic Circuits Lab	1	30	Dedicated	15 benches each including: 1 oscilloscope, 2 bench power supplies, 1 function generator
Computer Lab 1	1	22	Dedicated	22 Desktop computers, projector, whiteboard, internet
Computer Lab 2	1	25	Dedicated	25 Desktop computers, projector, whiteboard, internet
Computer Lab 3	1	18	Dedicated	18 Desktop computers, projector, whiteboard, internet
Electrical Machine Lab	1	15	Dedicated	4 benches
Communications Lab	1	15	Dedicated	5 benches
Digital Signal Processing Lab		15	Dedicated	5 benches
Digital System Design Lab		15	Dedicated	6 benches
Microprocessor Lab		20	Dedicated	6 benches
Mechatronics Lab		15	Dedicated	6 benches
Microwave Lab		15	Dedicated	4 benches
Microcontroller Lab		20	Dedicated	7 benches

23. Accreditation and recognition

The programme is officially recognized by the Ministry of Higher Education and Scientific Research of the Kurdistan Region – Iraq and the Ministry of Higher Education and Scientific Research of Iraq.