University of Mosul

***First Class*- Bachelor's Degree (B.Sc.) - Department of Communication and Intelligent Digital Systems Engineering**

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1. Mission and Vision Statement

Vision Statement

To achieve global leadership in the field of Communication Engineering and Intelligent Digital Systems through academic and research excellence; the delivery of advanced educational programs aligned with the latest engineering technologies; the conduct of innovative research in intelligent communications and digital transformation; the provision of solutions to technical problems; engineering leadership in innovation; community service and sustainable development in communication and digital-systems engineering; the preparation of qualified engineering professionals capable of leading digital transformation; and the promotion of .awareness of information security in communication systems

The Department of Communication Engineering and Intelligent Digital Systems seeks to meet the needs of Iraqi society and the region by providing high-quality programs in ,Communication Engineering and Intelligent Digital Systems in education, scientific research .and community service

2. Program Specification

Bachelor of Electrical Engineering	Program Code:	240	ECTS Credits
Two specializations; each comprises 4 levels and 8 semesters	Duration:	Full-time	Mode of Attendance:

Communication Engineering and Intelligent Digital Systems drive the core technologies of today's interconnected world. Every aspect of modern life depends on these technologies, including wired and wireless communications, industrial applications, global commerce, intelligent transportation systems, telecommunications, entertainment, and security. Consequently, communication engineering has become one of the fastest-growing professional fields worldwide, with strong demand for skilled electrical and electronic .engineers

Level ١ introduces students to the fundamentals of engineering and provides an appropriate foundation for progression across the programs within the electrical engineering ,group. Core program-specific topics are covered at Level ٢ in preparation for specialized research-led modules at Levels ٣ and ٤. Accordingly, graduates are trained to appreciate how research informs teaching, in accordance with the mission statements of the University and the .School

A research-oriented mindset is developed and reinforced from the outset through practical activities that are either embedded within lecture modules or delivered through dedicated practical modules, research seminars, and tutorials. All students undertake an .independent research project

Academic tutorials are conducted with the same tutor, who also serves as the personal tutor, thereby providing continuity and progressive guidance. The tutorial program includes workshops for developing skills such as library use and presentation skills, followed by assessed exercises, including essays and oral presentations, which provide opportunities to .apply these skills within a subject-specific context

٣. Program Goals (Objectives)

- Provide a sound foundation for developing the skills, knowledge, and application required for a wide range of professional engineering careers as a highly qualified practitioner and leader in business, engineering, research and development, and .industry
- Provide coherent and balanced coverage of theory, design, and practical topics based .on mathematics, science, and engineering, integrated with business and management
- ,Maintain a flexible academic structure that is appropriate and attractive to students staff, and industry, and that responds to technological advances and developments as .well as the needs of industrial and academic communities
- .Remain at the forefront of scholarship in electrical engineering
- Maximize the benefits of an environment in which staff conduct internationally .competitive and leading research across all aspects of electronics and computer science

- Provide an environment that contributes to students' personal and professional development and establishes a foundation for a wide range of further study and lifelong .learning
- Provide a high-quality learning environment with adequate laboratories equipped with appropriate equipment and instruments, modern CAD tools, and a high-quality .website, thereby encouraging students to engage in engineering practice
- Provide a supportive and accessible environment with opportunities for participation .in social and recreational activities

4. Program Student Learning Outcomes

The expected program learning outcomes, in accordance with the requirements of the Iraqi Council for Accreditation of Engineering Education Programs, comprise seven outcomes:

- Graduate Outcome 1 (GO1): Ability to identify, formulate, and solve engineering problems in Communication Engineering and Intelligent Digital Systems by applying principles of engineering, science, and mathematics.
- Graduate Outcome 2 (GO2): Ability to apply the engineering design process to produce solutions that meet specified needs while considering public health and safety, as well as global, cultural, social, environmental, economic, and other factors relevant to the discipline.
- Graduate Outcome 3 (GO3): Ability to develop and conduct appropriate experiments, analyze and interpret data, and use engineering judgment to draw conclusions.
- Graduate Outcome 4 (GO4): Ability to communicate effectively with a wide range of audiences.
- Graduate Outcome 5 (GO5): Ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments that consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- Graduate Outcome 6 (GO6): Ability to recognize the continuing need to acquire new knowledge, select appropriate learning strategies, and apply that knowledge.
- Graduate Outcome 7 (GO7): Ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines, and creates a collaborative and inclusive environment.

4. Academic Staff

University Email	Specialization	Degree	Academic Staff Member	No.
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٥. Credits, Grading, and Cumulative GPA

Credits

The University of Mosul follows the Bologna Process and adopts the European Credit Transfer and Accumulation System (ECTS). The total program load is ٢٤٠ ECTS credits, with ٣٠ ECTS credits per semester. One ECTS credit corresponds to ٢٥ hours of student workload, including .both structured and unstructured learning activities

Grading

Prior to evaluation, results are divided into two subgroups: pass and fail. Accordingly, the results are considered independently of students who have failed the course. The grading :system is defined as follows

Grading Scheme				
Group	Grade	Assessment	Marks (%)	Definition
Success Group (50-100)	A - Excellent	Excellent	90-100	Outstanding performance
	B - Very Good	Very Good	80-89	Above average with some errors
	C - Good	Good	70-79	Sound work with noticeable errors
	D - Satisfactory	Average	60-69	Fair, but with significant shortcomings
	E - Sufficient	Acceptable	50-59	Work meets the minimum criteria
Fail Group (0-49)	FX - Fail	Fail - Under Review	45-49	Further work is required, but credit may be granted
	F - Fail	Fail	0-44	A substantial amount of further work is required
Note:				
Decimal marks at or above/below 0.5 are rounded to the nearest higher or lower whole mark (e.g., 54.5 is rounded to 55, whereas 54.4 is rounded to 54). The University applies a policy of not condoning a 'near-pass failure'; therefore, the only adjustment to marks awarded by the original marker(s) is the automatic rounding described above.				

Cumulative Grade Point Average (CGPA) Calculation

١. The CGPA is calculated by summing each module grade multiplied by its ECTS credits .and dividing the total by the overall ECTS credits of the program

:CGPA for the four-year B.Sc. degree

CGPA = [(١st module score × ECTS) + (٢nd module score × ECTS) + …] / ٢٤٠

6. Curriculum / Modules

Semester ١ | ٣٠ ECTS Credits - ١ ECTS Credit = ٢٥ Hours

Code	Module	SSWL	USSWL	ECTS	Type	Prerequisite
CS111	Electrical circuits analysis	93	57	6.00	C	----
CS112	Mathematics	63	87	6.00	B	----
CS113	Engineering drawing	63	62	5.00	S	----
CS114	Physics	48	102	6.00	B	----
UOM1031	Computer 1	48	27	3.00	B	----
UOM1040	Democracy and human rights	30	20	2.00	S	----
UOM1011	Arabic Language 1	33	17	2.00	S	----

Semester ٢ | ٣٠ ECTS Credits - ١ ECTS Credit = ٢٥ Hours

Code	Module	SSWL	USSWL	ECTS	Type	Prerequisite
CS121	Physics 1	78	22	4.00	C	----
CS122	Mathematics 1	63	87	6.00	B	----
CS123	Digital Techniques	63	62	5.00	C	----
CS124	C lanuage Programing	63	62	5.00	S	----
CS125	Principles of artificial intelligent	48	52	4.00	B	----
CS126	Probability and statistics	48	52	4.00	S	----
UOM1021	English language 1	33	17	2.00	S	----

SSWL: Student Structured Workload (in-class learning hours)
USSWL: Student Unstructured Workload (out-of-class learning hours)
ECTS: European Credit Transfer and Accumulation System credits

٧. Contact

:Program Director

Dr. | Ph.D. in Engineering | Assistant Professor

:Email

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