University of Mosul

College of Computer Science and Mathematics

Department of Computer Science

Modules Catalogue

2024/2025

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1. Statement Vision & Mission

-Vision of the Computer Science Department:

The department aspires to lead in computer science by developing and utilizing modern technology and computer systems to support scientific progress and enrich society.

-Mission of the Computer Science Department:

The Computer Science Department seeks to provide high-quality education that aligns with modern technological advancements through updated curricula, advanced practical training, and distinguished scientific research, empowering students to innovate and preparing them for the job market and contributing to sustainable development.

2.Specification Program 2024-2025

The Department of Computer Science was established in 1983 within the College of Science. It remained part of that college until the formation of the College of Computer Science and Mathematics on July 28, 1999. Since then, the department has grown in both academic scope and infrastructure under the leadership of distinguished faculty members.

Program info.	4 years	Duration	4 levels
ECTS	240	Method of Attendance	Full time

3. Goals of Program

1- Strives to develop curricula that reflect the latest advancements technologies, including artificial

intelligence, cybersecurity, the Internet of Things, data analysis, cloud computing, and big data.

2- Seeks to introduce modern programming languages and provide cutting-edge development

environments to enhance students' technical capabilities.

3- Focusing on practical aspects in courses through increasing projects and interactive training.

4- Regularly updating computer labs by providing advanced computer hardware and software that keep

pace with technological innovation.

5- Empowering students for the job market by organizing training workshops on the latest technologies

and establishing partnerships with local and international companies to provide practical training.

6-Directing graduation projects towards practical solutions for the community.

7-Organizing programming competitions to enhance creativity and innovation.

8- Utilizing cloud computing to streamline access to resources.

9- Implementing modern assessment methods focusing on analysis and problem-solving to enhance practical skills and decision-making and critical thinking skills..

10- Providing a supportive academic environment that encourages students towards excellence and innovation.

4. Program Student learning outcomes

The educational program outcomes have been identified and formulated in accordance with the requirements of the National Qualifications Framework, which reflects the educational program's objectives. These outcomes must include the cognitive, skill, and ethical aspects required by the labor market, as well as modern academic developments. The educational program must also have clear, specific objectives and measurable learning outcomes. Furthermore, the objectives and

outcomes must be consistent with the needs of society and the labor market, while also meeting national and international academic standards.

5. Staff Academic

No.	Name	Degree	Academic Title	General Specialization	Specific Specialization
1	Prof. Dr. Dhuha Basheer Abdullah	Ph.D.	Prof.	Computer Science	Computer Architecture and Operating Systems
2	Prof. Dr. Prof. Manar Younis Ahmed Kashmoula	Ph.D.	Prof.	Computer Science	Computer Communication and Networks
3	Prof. Dr. Dujan Basheer Taha	Ph.D.	Prof.	Computer Science	Information Security and Privacy
4	Prof. Dr. Baydaa Iibraheem Khaleel	Ph.D.	Prof.	Computer Science	Intelligent Technologies
5	Asst. Prof. Dr. Naglaa Badie Ibrahim Khalil	Ph.D.	Asist Prof.	Computer Science	Computer and Network Security
6	Asst. Prof. Dr. Rawaa Putros Qasha	Ph.D.	Asist Prof.	Computer Science	Operating Systems
7	Asst. Prof. Dr. Yusra Faisal Mohammad	Ph.D.	Asist Prof.	Computer Science	Intelligent Technologies
8	Prof. Dr. Baydaa Iibraheem Khaleel	Ph.D.	Asist Prof.	Computer Science	Security
9	Asst. Prof. Dr. Yassin Hikmat Ismail Yassin	Ph.D.	Asist Prof.	Computer Science	Information Security
10	Asst. Prof. Dr. Ielaf O. Abdula Majjed	Ph.D.	Asist Prof.	Computer Science	Computer Vision
11	Asst. Prof. Dr. Ammar Dhahir Yassin Taha	Ph.D.	Asist Prof.	Computer Science	Data Mining
12	Asst. Prof. Melad Jader Saeed	M.Sc.	Asist Prof.	Computer Science	Information Security and Privacy
13	Asst. Prof. Sundus Khaleel Ebraheem	M.Sc.	Asist Prof.	Computer Science	Image Processing
14	Asst. Prof. Farah Tareq Mohammed	M.Sc.	Asist Prof.	Computer Science	Information Security and Privacy
15	Asst. Prof. Dr. Alyaa M. Abdul Majeed Haleem	M.Sc.	Asist Prof.	Computer Science	Information Security
16	Lec Dr. Nadia Tarik Saleh	Ph.D.	Lec	Computer Science	Operating Systems
17	Lec Dr. Omar Muayad Abdullah	Ph.D.	Lec	Computer Science	Multimedia
18	Lec Dr. Shayma Mustafa Mohi-Aldeen	Ph.D.	Lec	Computer Science	Software Engineering
19	Lec Dr. Amera Istiqlal Badran	Ph.D.	Lec	Computer Science	Intelligent Technologies
20	Lec Ghada Thanoon Younus	M.Sc.	Lec	Computer Science	Computer Science
21	Lec Ban Ghanim Maeyuf	M.Sc.	Lec	Computer Science	Computer Science
22	Lec Dr. Ghassan Jassim Mohammed	Ph.D.	Lec	Computer Science	Information Technology
23	Lec Hadia Saleh Abdullah	Ph.D.	Lec	Computer Science	Image Processing
24	Lec Maysoon Khider Hussein	M.Sc.	Lec	Computer Science	Computer Science
25	Lec Aeesha Sdeek Shaheen	M.Sc.	Lec	Computer Science	Computer Science
26	Lec Dr. Ruba Talal Ibrahim	Ph.D.	Lec	Computer Science	Computer Science
27	Lec Dr. Rayan Yousif Yacob Al-Khayat	Ph.D.	Lec	Computer Science	Advanced Database Management Systems
28	Lec Dr. Muna Jaffer Sedeeq	Ph.D.	Lec	Computer Science	Computer Science
29	Lec Dr. Nagham Ajeel Sultan	Ph.D.	Lec	Computer Science	Computer Science
30	Lec Dhafar Sami Hammadi	M.Sc.	Lec	Computer Science	Computer Science
31	Lec Ahmed Salih Hasan	M.Sc.	Lec	Computer Science	Computer Science
32	Lec Dr. Sedeeq Hassan Albana Ali	Ph.D.	Lec	Computer Science	Computer Science and Technology
33	Lec Dr. Wael Wadullah Mahmood	Ph.D.	Lec	Computer Science	Computer Science
34	Lec Zaid Abdulelah Mundher	M.Sc.	Lec	Computer Science	Computer Science
35	Lec Zainab Khalid Younis	M.Sc.	Lec	Computer Science	Computer Science
36	Lec Dr. Hiba Adreese Younis	Ph.D.	Lec	Computer Science	Computer Science
37	Lec Dr. Sameera Abbas Fadhel	Ph.D.	Lec	Computer Science	Computer Science
38	Lec Enas Ali Jameel Saleh	M.Sc.	Lec	Computer Science	Computer Science

39	Lec Iman Subhi Mohammed	M.Sc.	Lec	Computer Science	Computer Science
40	Lec Dr. Haleema Essa Solayman	Ph.D.	Lec	Computer Science	Computer Science
41	Lec Marwa Jassim Mohammad	M.Sc.	Lec	Computer Science	Computer Science
42	Asst. Lec Hanaa Mohammed Osman	M.Sc.	Asist Lec	Computer Science	Computer Science
43	Asst. Lec Mughira Mu'ayyad Aziz Ahmed	M.Sc.	Asist Lec	Computer Science	Computer Science
44	Asst. Lec Ahmed Ali Abdurrahman	M.Sc.	Asist Lec	Computer Science	Computer Science
45	Asst. Lec Muntaha Tariq Yaseen	M.Sc.	Asist Lec	Computer Science	Computer Science
46	Asst. Lec Ashraf Nabil	M.Sc.	Asist Lec	Computer Science	Computer Science
47	Asst. Lec Yasir Ali Mahmood	M.Sc.	Asist Lec	Computer Science	Computer Science
48	Asst. Lec Raghad Abdalhadi Abdulqader	M.Sc.	Asist Lec	Computer Science	Computer Science
49	Asst. Lec Rana Muayad Hasan	M.Sc.	Asist Lec	Computer Science	Computer Science
50	Asst. Lec Basma Basil Abdulmaged Zubair	M.Sc.	Asist Lec	Computer Science	Computer Science
51	Asst. Lec Mohammed Baker Yousif	M.Sc.	Asist Lec	Computer Science	Computer Science
52	Asst. Lec Manar Talaat Ahmed	M.Sc.	Asist Lec	Computer Science	Computer Science
53	Asst. Lec Raghad Saleem Mohammed	M.Sc.	Asist Lec	Computer Science	Computer Science
54	Asst. Lec Marwa Adnan Esmaeel	M.Sc.	Asist Lec	Arabic Language	Arabic Language

6. GPA and Grading ,Credits

Mosul University is following the Bologna Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

Grading Scheme مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

7. Modules

Level 1

Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language
One	1	UoMCS101	Programming Fundamentals	أساسيات البرمجة	English
	2	UoMCS102	Logic Circuits Design	تصميم الدوائر المنطقية	English
	3	UoMCS103	System Analysis and Design	تحليل وتصميم النظام	English
	4	UoMCS104	Discrete Mathematics	رياضيات متقطعة	English
	5	UoMCS105	Calculus	تفاضل وتكامل	English
	6	UoMCS106	English Language 1	اللغة الانكليزية ١	English
					Total

Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language
Two	1	UoMCS107	Advanced Programming	البرمجة المتقدمة	English
	2	UoMCS108	Principles of Computer Organization	مبادئ تركيب الحاسوب	English
	3	UoMCS109	Web Programming	برمجة الوب	English
	4	UoMCS110	Principles of Statistics	مبادئ الإحصاء	English
	5	UoMCS111	Democracy and Human Rights	الديمقراطية وحقوق الانسان	Arabic
	6	UoMCS112	Computer	الحاسوب	English
	7	UoMCS113	Arabic Language 1	اللغة العربية ١	Arabic
					Total

Level 2

Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language
Three	1	UoMCS201	Object Oriented Programming 1	البرمجة الكيانية	English
	2	UoMCS202	Database Fundamentals	اساسيات قواعد البيانات	English
	3	UoMCS203	Microprocessors	معالجات	English
	4	UoMCS204	Data Structures 1	هياكل البيانات١	English
		UOM2012	Arabic Language 2	اللغة العربية ٢	Arabic
	5	UoMCS205	Computational Theory	الاحتسابية	English
	6	UOM2050	The Crimes of the Baath System in Iraq	جرائم نظام البعث في العراق	Arabic
					Total

Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language
Four	1	UoMCS207	Object Oriented Programming 2	البرمجة الكيانية ٢	English
	2	UoMCS208	Computer Architecture	معمارية الحاسوب	English
	3	UoMCS209	Distributed Database	قواعد بيانات موزعة	English
	4	UoMCS210	Data Structures 2	هياكل البيانات٢	English
	5	UoMCS211	Software Engineering	هندسة البرمجيات	English
	6	UOM2022	English language 2	اللغة الإنكليزية ٢	English
					Total

8. Contact

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