

Academic Program Description Form

Review of the performance of higher education institutions - Academic program review

Academic Program Description

This academic programme description provides a brief summary of the main features of the programme and the learning outcomes expected of the student, demonstrating whether he/she has made the most of the opportunities available. It is accompanied by a description of each course within the programme.

University of Mosul	Educational Institution	1
Faculty of Computer Science Mathematics / Department of Computer Science	University Department / Center	2
Computer Science	Name of the academic program	3
Bachelor of Science in Computer Science	Name of final certificate	4
Course system	The educational system	5
Academic Accreditation (ABET)	Accredited Accreditation Program	6
Central Examinations	Other external influences	7
2022	Date the description was prepared	8

<p>Objectives of the academic program:</p> <ol style="list-style-type: none"> 1. Providing students with theoretical and academic knowledge and scientific skills according to the latest scientific findings as professional and academic cadres that support society and its institutions with distinguished specialists and various scientific degrees and seek to increase the number of accepted students after developing and increasing the capabilities of the department according to the needs of the labor market and following up on the scientific level through statistics of the results of each Year. 2. Providing solutions to the problems of state institutions in this regard through the research of postgraduate students and teaching staff. 3. Keeping pace with modern scientific developments through teaching staff research projects and focusing on them being in modern fields, especially applied ones, without neglecting the academic aspect, including its scientific importance to the department, and following up on this through the research plans prepared annually for the department. 4 .Focusing on educational goals through the educational guidance committees in the department linked to the guidance committee in the college and continuous meetings with students to refine their personalities and guide them educationally to solve their problems in a manner consistent with the ethics of our society. All of this is done through following up on the committees and their reports that are submitted to the committee in the college and the department presidency. 5. Raising the level of scientific research by holding an annual conference and participating in local, Arab and international conferences. 6. Communicating with modern scientific sources by providing modern books and references from scientific book fairs. 	9
Desired learning outcomes, teaching, learning and assessment methods	10

<p>Knowledge and understanding</p> <ul style="list-style-type: none"> -1 The student learns programming languages -2 The ability to find scientific solutions to society's problems programmatically. -3 The ability to use and develop means of communication and wired and wireless networks -4 The ability to analyze and evaluate software systems before starting to design the system -5 Developing the student's skills in building intelligent systems that depend on analysis, inference, perception and self-learning. -6 Providing the student with some basic rules for evaluating and building software systems based on: 	a
<p>Basics of software analysis.</p> <p>Increase the student's information on the basics of implementing software systems through understanding the mechanism of computer operation..</p>	
<p>Subject-specific skills:</p> <ol style="list-style-type: none"> 1. Theoretical. 2. Practical. 3. Summer training. 4. Graduation research. 	b
<p>Learning and teaching methods:</p> <ol style="list-style-type: none"> 1. Regular blackboard 2. Smart board 3. Data projector 	
<p>Theoretical and practical lectures .</p>	

Teaching Methods 1- Electronic Exams -2 Central and Monthly Exams -3 Daily Exams -4 Scientific Reports -5 Practical Exams -6 Research Projects	
Exams Assignments Daily Homework Discussions Lab Reports Graduation Project	

<p>Thinking Skills</p> <ul style="list-style-type: none"> -1 Deduction and Analysis Skill -2 Comparison Skill -3 Discussion Skills -4 Computer and Internet Usage Skills -5 Research and Investigation Skill -6 Research and Conclusion Skill -7 Decision Making Skill 	c
<p>Teaching and learning methods</p> <ul style="list-style-type: none"> -1 Theoretical lectures -2 Practical laboratories -3 Research and investigation -4 Discussion groups within practical lessons 	
<p>Lectures, practical experiments, applications, homework, scientific discussions</p>	
<p>General and transferable skills (other skills related to employability and personal development)</p>	d
<ul style="list-style-type: none"> 1- Developing the ability to work effectively in a team 2- Developing the ability to learn independently. 3- Developing the ability to present and discuss ideas. 4- Developing the ability to deal with problems in a logical and organized manner. 5- The ability to work in a multidisciplinary team. 6- The ability to communicate and build.. 	

Program Structure				
Level/Year		Course Name	Course Code	Credit Hours
Theo retic al	Practi cal			
2		Arabic	UMOC100	First year
2		English1	UMOC101	
2		Democracy and Human Rights	UMOC103	
2		Professional Ethics	UMOC104	
		University Elective		
۳		Differentiability and Integration 1	CCSM101	
2		Differentiability and Integration 2	CCSM102	
2	2	Principles of Statistics 1	CCSM103	
2	2	Programming	CCSM104	
1	2	Computer Applications	CCSM105	
		College Elective		
2	2	Logic Design	COMP101	
3		Discrete Structures	COMP102	
2	2	Advanced Programming	COMP103	
1	2	Computer Structure	COMP104	
		University Elective		Second year
2	2	Numerical Analysis	CCSM201	
2	2	Information Technology	CCSM206	
		College Elective		
		College Elective		

2	2	Object-Oriented Programming	COMP201	
2	2	Processing Microarchitecture	COMP202	
2	2	Data Structures	COMP203	
3		Software Engineering	COMP204	
3		Computer Architecture	COMP205	
3		Computational Theory	COMP207	
1	2	Website Design	COMP208	
2		Algorithm Analysis and Design	COMP301	Third year
2		System Analysis and Design	COMP302	
2	2	Compiler Building	COMP303	
2	2	Databases	COMP304	
2	2	Operating Systems Principles	COMP305	
2	2	Computer Networks	COMP306	
2	2	Artificial Intelligence	COMP307	
2	2	Cryptography and Data Security	COMP308	
2	2	Distributed Systems	COMP401	Fourth year
		Summer Training	COMP402	
2		Graduation Project 1	COMP403	
1	2	Computer Security	COMP404	
2	2	Digital Image Processing	COMP405	
2		Graduation Project 2	COMP406	

Bachelor's degree requires (132) credit hours.	Certificates and accredited hours
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.Planning for personal development
<ul style="list-style-type: none"> -1- E-learning 2- Using the Internet 3- Using modern means of communication 4- Extracurricular activity 5- Access to training courses
.Admission criteria (establishing regulations related to joining the college or institute)
<ul style="list-style-type: none"> -1 Central admission in the Ministry of Higher Education and Scientific Research -2 The student's average within the central admission lists, with the exception of the children of teachers, who are accepted according to their desire to be distributed among the departments.
Student Guide for Central Admission Prepared by the Ministry of Higher Education and Scientific Research

Curriculum Skills Map

Please tick the boxes corresponding to the individual learning outcomes of the programme that are subject to evaluation.

General and transferable skills (or) other skills related to employability and personal development				Thinking skills				Subject-specific skills				Knowledge and understanding				Essential or optional	Year/Level	Course Code	Course Name
4d	3d	2d	1d	4c	3c	2c	1c	4b	3b	2b	1b	4a	3a	2a	1a				
											✓					Basic	Arabic	UMOC100	First year
											✓					Basic	English 1	UMOC101	
											✓					Basic	Democracy and Human Rights	UMOC103	
											✓					Basic	Professional Ethics	UMOC104	
																Optional	University Elective		
		✓	✓		✓	✓	✓				✓				✓	Basic	Differentiability and Integration 1	CCSM101	
		✓	✓		✓	✓	✓				✓				✓	Basic	Differentiability and Integration 2	CCSM102	
		✓	✓		✓	✓	✓				✓				✓	Basic	Principles of Statistics 1	CCSM103	
			✓		✓	✓	✓			✓				✓	✓	Basic	Programming	CCSM104	
			✓		✓						✓			✓		Basic	Computer Applications	CCSM105	
																Optional	College Elective		
					✓	✓	✓			✓					✓	Basic	Logic Design	COMP101	
		✓	✓		✓	✓	✓				✓				✓	Basic	Discrete Structures	COMP102	
			✓		✓	✓	✓			✓				✓	✓	Basic	Advanced Programming	COMP103	
	✓				✓										✓	Basic	Computer Assembly	COMP104	

General and transferable skills (or) other skills related to employability and personal development				Thinking skills				Subject-specific skills				Knowledge and understanding				Essent ial or option al	Year/Level	Course Code	Course Name
4d	3d	2d	1d	4c	3c	2c	1c	4b	3b	2b	1b	4a	3a	2a	1a				
																Optional	Choose a university		
		✓	✓		✓	✓	✓				✓				✓	Basic	Numerical analysis	CCSM201	
	✓				✓					✓				✓	✓	Basic	Information technology	CCSM206	
																Optional	Choose a college		
																Optional	Choose a college		
															✓	Basic	Entity programming	COMP201	
		✓								✓	✓	✓	✓	✓	✓	Basic	Microprocessors	COMP202	
		✓								✓	✓	✓	✓	✓	✓	Basic	Data structures	COMP203	
		✓	✓		✓		✓				✓				✓	Basic	Software engineering	COMP204	
										✓	✓	✓	✓	✓	✓	Basic	Computer architecture	COMP205	
	✓	✓									✓					Basic	Computational theory	COMP207	
		✓	✓		✓		✓				✓				✓	Basic	Website design	COMP208	

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ond
year

General and transferable skills (or) other skills related to employability and personal development				Thinking skills				Subject-specific skills				Knowledge and understanding				Essential or optional	Year/Level	Course Code	Course Name
4d	3d	2d	1d	4c	3c	2c	1c	4b	3b	2b	1b	4a	3a	2a	1a				
					✓					✓	✓			✓	✓	Basic	Analysis and design	COMP301	Third year
	✓						✓			✓	✓			✓		Basic	Algorithms	COMP302	
✓			✓		✓	✓				✓	✓	✓			✓	Basic	Systems analysis and design	COMP303	
	✓						✓			✓	✓			✓		Basic	Building translations	COMP304	
✓	✓				✓	✓				✓	✓			✓	✓	Basic	Databases	COMP305	
			✓		✓	✓				✓	✓		✓	✓		Basic	Principles of operating systems	COMP306	
	✓									✓	✓			✓	✓	Basic	Computer networks	COMP307	
	✓		✓				✓			✓	✓		✓	✓	✓	Basic	Artificial intelligence	COMP308	
																Optional	Encryption and data security		
																Optional	Select a section		
																Optional	Select a section		
																Optional	Select a section		

General and transferable skills (or) other skills related to employability and personal development				Thinking skills				Subject-specific skills				Knowledge and understanding				Essential or optional	Year/Level	Course Code	Course Name
4d	3d	2d	1d	4c	3c	2c	1c	4b	3b	2b	1b	4a	3a	2a	1a				
✓	✓				✓	✓				✓	✓			✓	✓	Basic	Distributed Systems	COMP401	Four th year
	✓					✓				✓	✓			✓	✓	Basic	Summer Training	COMP402	
					✓		✓			✓					✓	Basic	Graduation Project 1	COMP403	
	✓		✓				✓			✓	✓	✓			✓	Basic	Computer Security	COMP404	
			✓		✓	✓				✓	✓			✓	✓	Basic	Digital Image Processing	COMP405	
					✓		✓			✓					✓	Basic	Graduation Project 2	COMP406	
																Optional	Optional Section		
																Optional	Optional Section		
																Optional	Optional Section		
																Optional	Optional Section		
																Optional	Optional Section		
																Optional	Distributed Systems		