وزارة التعليم العالي والبحث العلمي

جامعة الانبار

كلية علوم الحاسوب وتكنولوجيا المعلومات

قسم نظم المعلومات
دليل مسار بولونيا
٢٠٢٣-٢٠٢٤

Program Curriculum

Program Catalogue

Modules Catalogue

Module Description Form

	Republic of Iraq - Ministry of Higher Education and Scientific Research
	University of Anbar
	Bachelor's degree in Information Systems (First cycle)
	Four years (Eight semesters) - 240 ECTS credits - 1 ECTS = 25 hr
	Program Curriculum (2023 - 2024)

جمهورية العراق - وزارة التعليم العالي والبحث العلمي
جامعة الانبار
بكالوريوس في نظم المعلومات ا(الدورة الأولى)
أربع سنوات (ثمانية فصول دراسية) - ٢٤٠ وحدة اوربية - كل وحدة اوربية = ٢٥ ساعة
المنهاج الدراسي للعام ٢٠٢٣-٢٠٢٤

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS	Module Type	Prerequisite Module(s) Code	
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)								
UGI	One	1	ISSP101	Structured programming	البرمجة المهيكلة I	English	3		3		1		3	108	92	200	8.00	C		Depatment
	One	2	ISFI 102	Fundamental of Information Techn	اساسيات تكنولوجيا المعلومات	English	2		3				3	78	72	150	6.00	C		Depatment
	One	3	ISLD103	Logic Design I	تصميم منطقي I	English	3		2		1		3	93	57	150	6.00	C		Depatment
	One	4	CCIT060	Mathematic	الرياضيات I	English	3				2		3	78	72	150	6.00	B		COLLEGE
	One	5	UOA005	Democracy and Human Rights	الديمقراطية وحقوق الانسان	Arabic	2						3	33	17	50	2.00	S		
	One	6	UOA003	English I	اللغة الانكليزية 1	English	2						3	33	17	50	2.00	S		UNIVERSITY
					Total		15	0	8	0	4	0	18	423	327	750	30.00			
	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)	Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS	Module Type	Prerequisite Module(s) Code	
	Two	1	ISSP201	Structured programming II	البرمجة المهيكلة II	English	3		3		1		3	108	92	200	8.00	C	ISSP101	Department
	Two	2	CCIT061	Discrete Structures	هياكل متقطعة	English	3				2		3	78	72	150	6.00	B		COLLEGE
	Two	3	ISLD202	Logic Design II	تصميم منطقي II	English	2		3		1		3	93	57	150	6.00	C	ISLD103	Department
	Two	4	ISMT203	Communication skills	مهارات التواصل	English	2						3	33	17	50	2.00	C		Department
	Two	5	ISOA204	Office applications	تطبيقات مكتبية	English	2		2				3	63	87	150	6.00	C		
	Two	6	UOA001	Arabic Language 1	اللغة العربيه 1	Arabic	2						3	33	17	50	2.00	S		UNIVERSITY
					Total		14	0	8	0	4	0	18	408	342	750	30.00			
Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)	Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS	Module Type	Prerequisite Module(s) Code	
UGII	Three	1	ISDC207	Object Oriented Programming I	البرمجة الكيانية I	English	3	2					5	80	120	200	8.00	C	CSIT108	
	Three	2	CSIT201	Data Structures and Algorithms	هياكل البيانات وخوارزميات	English	2	2					5	65	85	150	6.00	C		
	Three	3	ISDE215	Computational Theory	النظرية الاحتسابية	English	2						4	34	66	100	4.00	C		
	Three	4	ISDC198	Iuction to Elecrtonic information sy	مقدمة في نظم المعلومات الالكترونية	English	2						4	34	91	125	5.00	E		
			ISDC202	gn and Analysis of Information Sys	تحليل وتصميم نظم المعلومات													E		
	Three	5	ISCS104	Data Warehouse	مستودع بيانات	English	2						5	35	15	50	2.00	C		
	Three	6	ISDC203	Advanced Mathematics	الرياضيات المتقدمة	English	2				1		5	55	70	125	5.00	C	ISDC116	
					Total		13	4	0	0	1	0	28	303	447	750	30.00			
	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)	Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS	Module Type	Prerequisite Module(s) Code	
	Four	1	ISDE211	Object Oriented Programming II	البرمجة الكيانية II	English	3		2				5	80	120	200	8.00	C	ISDC207	
	Four	2	ISDC205	Design and Analysis of Databases	تحليل وتصميم قواعد البيانات	English	2		2				5	65	110	175	7.00	C		
	Four	3	ISDE190	Web Technologies	تقنيات مواقع الانترنت	English	2		2				5	65	110	175	7.00	E		
			ISDE219	Design Internet Pages	تصميم صفحات الانترنت	English												E		
	Four	4	CCIT062	Numerical Analysis	تحليل عددي	English	2		2		1		5	80	70	150	6.00	B		
	Four	5	UOA004	English II	اللغة الانكليزية II	English	2						2	32	18	50	2.00	S	UOA140	
	Four	6	UOA006	The Crimes of Baath Regime in Ira	جرائم نظام البعث	Arabic	1						2	17	15	32	2.00	S	UOA135	

		Republic of Iraq - Ministry of Higher Education and Scientific Research	جمهورية العراق - وزارة التعليم العالي والبحث العلمي	
		University of Anbar	جامعة الانبار	
		Bachelor's degree in Information Systems (First cycle)	بكالوريوس في نظم المعلومات ا(الدورة الأولى)	
		Four years (Eight semesters) - 240 ECTS credits - 1 ECTS = 25 hr	أربع سنوات (ثمانية فصول دراسية) - ٢٤٠ وحدة اوربية - كل وحدة اوربية = ٢٥ ساعة	
		Program Curriculum (2023 - 2024)	المنهاج الدراسي للعام ٢٠٢٣-٢٠٢٤	

Total	11	0	8	0	1	0	22	322	428	750	30.00

Republic of Iraq - Ministry of Higher Education and Scientific Research University of Anbar Bachelor's degree in Information Systems (First cycle) Four years (Eight semesters) - 240 ECTS credits - 1 ECTS = 25 hr Program Curriculum (2023 - 2024)	جمهورية العراق - وزارة التعليم العالي والبحث العلمي جامعة الانبار بكالوريوس في نظم المعلومات ا(الدورة الأولى) أربع سنوات (ثمانية فصول دراسية) - ٢٤٠ وحدة اوربية - كل وحدة اوربية = ٢٥ ساعة المنهاج الدراسي للعام ٢٠٢٣-٢٠٢٤

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS	Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)							
	Five	1	ISDC308	Visual Programming I	البرمجة المرئية I	English	3		2				5	80	95	175	7.00	C	
	Five	2	CCIT063	Principles Of Computer Network	مبادئ شبكات الحاسوب	English	3		2	1			3	93	57	150	6.00	B	
	Five	3	ISDE389	Natural Lagnauge Processing	معالجة اللغات الطبيعية	English	2		2				5	65	60	125	5.00	C	ISDE215
	Five		ISDE324	Compiler	المترجمات	English												C	
	Five	4	ISDC307	Project Management Systems	نظم ادارة مشاريع	English	2						5	35	65	100	4.00	C	
	Five	5	ISDE325	Artificial Intelligent I	الذكاء الاصطناعي I	English	2		2				5	65	85	150	6.00	C	
	Five	6	UOA002	Arabic Language II	لغة العربية II	Arabic	2						2	32	18	50	2.00	S	
						Total	12	0	8	1	0	0	23	338	362	700	30.00		

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS	Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)							
UGIII	Six	1	ISDE323	Visual Programming II	البرمجة المرئية II	English	3		2				5	80	95	175	7.00	C	ISDC308
	Six	2	ISDE325	Artificial Intelligent II	الذكاء الاصطناعي II	English	2		2				5	65	85	150	6.00	C	ISDC305
	Six	3	ISDC323	Data Storage Engineering	هندسة خزن البيانات	English	2						5	35	65	100	4.00	E	
	Six		ISDC309	Software Engineering	هندسة برامجيات	English												E	
	Six	4	ISDC327	Data Management Systems	نظم ادارة المعلومات	English	2						5	35	65	100	4.00	C	
	Six	5	ISRM3	IT Risk Management	ادارة المخاطر تكنولوجيا المعلومات	English	2						5	35	40	75	3.00	C	
	Six	6	ISDC306	ibuted Database Management syst	نظم ادارة قواعد البيانات الموزعة	English	2		2				5	80	70	150	6.00	C	ISDC205
						Total	13	0	6	0	0	0	30	330	420	750	30.00		

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS	Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)							
	Seven	1	ISDE323	Information Security	امنية البيانات	English	2						5	35	90	125	5.00	C	
	Seven	2	ISDE322	Internet of Things	انترنيت الاشياء	English	2		2				5	65	85	150	6.00	E	
	Seven		ISDE324	Cloud Computing	الحوسبة السحابية	English												E	
	Seven	3	ISDE325	Machine learning	تعلم الالة	English	2		2				5	65	85	150	6.00	C	
	Seven	4	ISDC375	Operating Systems I	انظمة تشغيل I	English	2		2				5	65	60	125	5.00	C	
	Seven	5	ISDC327	Web Application Programming	برمجة تطبيقات الويب	English	2		2				5	65	85	150	6.00	C	ISDE219
	Seven	6	UOA019	Research Methodology	منهج بحث	English	2						5	35	15	50	2.00	S	
						Total	12	0	8	0	0	0	30	330	420	750	30.0		

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS	Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)							
UGIV	Eight	1	ISDC406	Cyber-Security Principles	أساسيات الأمن السيبراني	English	2						5	35	90	125	5.00	C	ISDE323
	Eight	2	ISDC405	Deep Learning	التعلم العميق	English	2		2				5	65	60	125	5.00	C	ISDE325
	Eight	3	ISDE333	nformation Technology Governance	حوكمة تكنولوجيا المعلومات	English	2						3	33	42	75	3.00	E	
	Eight		ISDE414	E- Commerce	التجارة الالكترونية	English												E	
	Eight	4	ISDC309	Data Minining	تنقيب البيانات	English	2						3	33	42	75	3.00	C	
	Eight	5	ISDC422	Operating Systems II	انظمة تشغيل II	English	2		2				5	65	85	150	6.00	C	

Republic of Iraq - Ministry of Higher Education and Scientific Research								جمهورية العراق - وزارة التعليم العالي والبحث العلمي									
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Program Curriculum (2023 - 2024)								المنهاج الدراسي للعام ٢٠٢٤-٢٠٢٣									
Eight	6	IOA020+D4	Project		مشروع التخرج	English				4	2			3	93	107	200	8.00	S
				Total			10	0	8	2	0	0	24	324	426	750	30.0	

UNIVERSITY OF ANBAR

	Total	90	4	46	3	10	0	168	2778	3172	5950	240.0		**Must be 240 ECTS**

er Internships to fullfil the requirements of the Bachelor's degree

Structured

		CL	Class Lecture			**B**	Basic learning activities			**SWL:**	Student Workload
		Lab	Laboratory			**C**	Core learning activity			**SSWL:**	Structured SWL
		Pr	Practical Training	**Module type**		**S**	Suport or related learning activity			**USSWL:**	Unstructured SWL
		Tut	Tutorial			**E**	Elective learning activity				
		Lect	Online lecture								

جامعة الانبار

UNIVERSITY OF ANBAR

First Cycle – Bachelor's degree of (B.Sc.) – Information System

بكالوريوس نظم المعلومات

Table of Contents | جدول المحتويات

1.   Mission & Vision Statement

Vision Statement

The Information Systems Department was established in 1999 to prepare qualified cadres in the field of building systems and information bases to supply state departments with expert cadres in order to develop the software industry in the country and to keep abreast of the tremendous developments in this field and to deal with modern technologies and information network. The main interest of the department is focused on the software industry in the country and keeping pace with The tremendous developments in this field and dealing with modern technologies and the information network, and the main concern of the department is to study all technical issues, issues of senior management, planning policies and decision-making associated with the employment of computers in the establishment of information systems for major institutions, and the department deals with the theoretical and practical aspects related to the description, analysis, design, implementation and management of systems Information while maximizing the utilization of the information and communication technology infrastructure.

Mission Statement

The Information System Department academic staff pursues a multifaceted charge at University of Anbar. The Program seeks to provide all Information System Department students with fundamental knowledge of Information System, as well as a deeper understanding of a selected focus area within the Computer sciences. The curriculum and advising have been designed to prepare graduates for their professional future, whether they choose to work as Information System specializing in botany or wildlife, or to pursue advanced degrees in the Information Technology. The Information System program also provides the necessary fundamental knowledge of the Computer sciences to support the

Computer Science degree, the Network Technology degree, and the Artificial intelligence degree in Forest Technology. In addition, Information System courses provide a key laboratory science experience for those students seeking to complete the general education requirements

2. Program Specification

Programme code:	BSc-IT	ECTS	240	
Duration:	4 levels, 8 Semesters	Method of Attendance:	Full Time	

Information System is a wonderfully wide-ranging subject and is well equipped to deliver. The emphasis of the program is the whole organism to which everything is related, be it the molecules that form proteins or communities of organisms in an ecosystem. The degree is popular - –or some it's' the breadth of the subject that appeals, for others it's a path to specialization. All students have the opportunity to transfer onto our specialist degrees in Information System at the end of the first year.

Level 1 exposes students to the fundamentals of Information System, suitable for progression to all programs within the Information System program group. Program-specific core topics are covered at Level 2 preparing for research-led subject specialist modules at Levels 3 and 4. The University Information System graduate is therefore trained to appreciate how research informs teaching, according to the University and School Mission statements.

At Levels 2, 3 and 4 students are able to study a range of modules which are selected, that reflect the complexity of life forms from Data Structure , information security, Networks , to free to choose more than half of their module credits with the proviso Artificial Intelligence to ensure the breadth of knowledge expected of a graduate with Information System degree. This allows students to develop their own wide-ranging interests in Information System and Data Science. Decisions on what to study are made with input from personal tutors.

The research ethos is developed and fostered from the start via practical's, which are either embedded in lecture modules or taught in dedicated practical modules, research seminars and tutorials. There is a compulsory field course in Level 1, which students must pass in order to progress into Level 2, and optional field courses in Levels 2, 3 and 4. At Level 4 all students carry out an independent research project, which may be a 8 credit library or data analysis project, or a 8 credit field or laboratory based project.

Academic tutorials are held at Levels 1 and 2 with the same tutor, who is also the personal tutor, providing continuity and progressive guidance. Level 1 and 2 tutorials include a number of workshops to teach skills, e.g. library use and presentation skills, followed by assessed exercises, e.g. essays and talks, as opportunities to practice these skills in a subject-specific context.

International years and Industrial placements are also offered and individual needs are discussed with the appropriate tutor and accommodated wherever possible.

3.   Program Objectives

1. The department aims to prepare qualified cadres in the field of building systems and databases to provide state departments and institutions with expert cadres, in a way that develops the software industry in Iraq, keeping abreast of the tremendous developments in this field, and dealing with modern technologies and the information network. To be able to study the problems and challenges in the field of information systems science and technology.
2. Prepare the student systematically
3. Enable the systems analyst to lead a software team to prepare a computer system that solves the problems of users and beneficiaries.
4. Developing the students' mental abilities through analysis and logical deduction, and enabling them to solve programming problems
5. The necessary development of school curricula to ensure the integration of recent changes in computer science technology and e-learning applications.
6. Encouraging innovative ideas and projects and developing leadership and creative skills in the field of information technology by urging students to participate in computer events and forums.

4.   Student Learning Outcomes

Information System is the study of the organization and operation of life at business and organizations levels. Graduates obtain information on how to collect, retrieve, process, store and disseminate information for the purpose of facilitating planning , control , analysis ,coordination and decision making in business and other organizations. The Department offers a Bachelor of Science in Information system. Additionally, the Department offers courses to a large number of students from other departments and supports pre-professional programs. The Information System curriculum and experiences are designed to prepare students, in part, for entry into professional Technology programs, graduate studies, technical careers and education

Outcome 1

Identification of Complex Relationships

Graduates will be able to illustrate the structure and function of information systems components and explain how they interact in a living cell.

Outcome 2

Oral and Written Communication

Graduates will be able to formally communicate the results of technology   investigations using both oral and written communication skills.

Outcome 3

Laboratory and Field Studies

Graduates will be able to perform laboratory experiments and field studies, by using scientific equipment and computer technology while observing appropriate safety protocols.

Outcome 4

Scientific Knowledge

Graduates will be able to demonstrate a balanced concept of how scientific knowledge develops, including the historical development of foundational theories and laws and the nature of science.

Outcome 5

Data Analyses

Graduates will be able to demonstrate scientific quantitative skills, such as the ability to conduct simple data analyses.

Outcome 6

Critical Thinking

Graduates will be able to use critical-thinking and problem-solving skills to develop a research project and/or paper.

5.   Academic Staff

Murtadha Mohammed Hamed Ramathan | Ph.D. in Exploration and Data Warehouse | Professor
Email: co.mortadha61@uoanbar.edu.iq
Mobile no.:

Khalid Shaker Jasim Mohammad | Ph.D. in Artificial Intelligence| Assistant Professor
Email: khalidalhity@uoanbar.edu.iq
Mobile no.:

Omar Abdulrahman Dawood Salman | Ph.D. in Information System | Assistant Professor
Email: omar-abdulrahman@uoanbar.edu.iq
Mobile no.:

Baraa Tareq Hammad Al-showka | Ph.D. in Information System | Assistant Professor
Email: baraa.tareq@uoanbar.edu.iq
Mobile no.:

 Mazin Abed Mohammed Abed | Ph.D. in Artificial Intelligence | Assistant Professor

Email: mazinalshujeary@uoanbar.edu.iq

Mobile no.:

Akeel Abdulraheem Thulnoon Zoead | Ph.D. in Distributed Systems | Lecturer

Email: akeelalhadithy@uoanbar.edu.iq

Mobile no.:

Waleed Khalid Hassan Deeb | Ph.D. in Cloud Security and Privacy | Lecturer

Email: waleed.hassan@uoanbar.edu.iq

Mobile no.:

Muntaser Abdulwahed Salman Abdulaziz | Ph.D. in Networks | Lecturer

Email: co.montasser.salman@uoanbar.edu.iq

Mobile no.:

Mohammed Rabeea Hashim Mohammed | Ph.D. in Robotics and Control | Lecturer

Email: mohammed.rabeea@uoanbar.edu.iq

Mobile no.:

Waleed Abdulmaged Hammood Ali | Ph.D. in Information System | Lecturer

Email: waleed.abdulmaged@uoanbar.edu.iq

Mobile no.:

Sadir Abdulwahed Fadhil Abd | Ph.D. in Intelligent Systems | Lecturer

Email: fadhil-academia@uoanbar.edu.iq

Mobile no.:

Mohanad Abdulsalam younis gedan | Ph.D. in Computer Science | Lecturer

Email: mohanad.abdul@uoanbar.edu.iq

Mobile no.:

Farah Maath Jasem Alani | MSc in Computer Science | Assistant Lecturer

Email: farahmaath86@uoanbar.edu.iq

Mobile no.:

Mahmoud Hilal Farhan Mes'her | MSc in Computer Science| Assistant Lecturer

Email: mah2005hilal@uoanbar.edu.iq

Mobile no.:

Hadeel amjed saeed ali| MSc in Computer Science| Assistant Lecturer

Email: Hadeel.saeed@uoanbar.edu.iq

Mobile no.:

Shokhan Mahmoud Hama Hama | MSc in Computer Science | Lecturer

Email: shokhan.albarzinji@uoanbar.edu.iq

Mobile no.:

Doaa Yaseen Khudhur abdullrahuman | MSc in Computer Science | Lecturer

Email: co.doaa.yassin@uoanbar.edu.iq

Mobile no.:

Yaqeen Saad Ali Dieb | MSc in Computer Science | Assistant Lecturer

Email: yaqeen.saad@uoanbar.edu.iq

Mobile no.:

6.   Credits, Grading and GPA

Credits

University of Anbar 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.

Grading

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:				
Number 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.				

Calculation of the Cumulative Grade Point Average (CGPA)

1. The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

    CGPA of a 4-year B.Sc. degree:

    CGPA = [(1st ^{m}odule score x ECTS) + (2nd ^{m}odule score x ECTS) + ……] / 240

7. Curriculum/Modules

Semester 1 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
CSIT107	Structured programming	80	120	8.00	B	
CSIT110	Fundamental of Information Technology	65	85	6.00	B	
CSIT109	Logic Design I	95	55	6.00	B	
ISDC115	Mathematic I	50	100	6.00	C	
UOA140	English (1)	35	65	4.00	B	
		325	425	30.00		

Semester 2 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
CSIT108	Structured programming II	80	120	8.00	B	CSIT107
CSIT112	Discrete Structures	50	100	6.00	B	
CSIT111	Logic Design II	65	85	6.00	B	CSIT109
ISDC116	Mathematic II	50	100	6.00	C	ISDC115
UOA137	Arabic Language	35	65	4.00	B	`
		280	470	30.00		

Semester 3 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
ISDC207	Object Oriented Programming I	80	120	8.00	B	CSIT108
CSIT201	Data Structures and Algorithms	65	85	6.00	B	
ISDE215	Computational Theory	35	65	4.00	B	
ISDC198	Introduction to Electronic information system	35	90	5.00	E	
ISDC202	Design and Analysis of Information Systems	35	90	5.00	E	
UOA135	Democracy and Human Rights	25	25	2.00	B	
ISDC203	Advanced Mathematics	55	70	5.00	B	ISDC116
		295	455	30.00		

Semester 4 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
ISDE211	Object Oriented Programming II	80	120	8.00	B	ISDC207
ISDC205	Design and Analysis of Databases	65	85	6.00	B	
ISDE190	Web Technologies	65	85	6.00	E	
ISDE219	Design Internet Pages	65	85	6.00	E	
ISDC303	Numerical Analysis	65	85	6.00	C	
UOA240	English (2)	35	65	4.00	B	
UOA140	AlBaath Party Crimes	15	15	2.00	B	
		310	440	30.00		

Semester 5 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
ISDC308	Visual Programming I	80	120	8	B	
ISDC305	Principles Of Computer Network	65	85	6	B	
ISDC306	Distributed Database Management systems	65	85	6	B	ISDC205
ISDE389	Natural Lagnauge Processing	65	85	6	E	ISDE215
ISDE324	Compiler	65	85	6	E	
ISDC307	Project Management Systems	35	65	4	B	
ISDE325	Artificial Intelligent I	310	440	30		

Semester 6 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
ISDE323	Visual Programming II	80	120	8	B	ISDC308
ISDE325	Artificial Intelligent II	65	110	7	B	ISDC305
ISDC323	Data Storage Engineering	35	90	5	E	
ISDC309	Software Engineering				E	
ISDC327	Data Management Systems	35	90	5	C	
ISDC328	Decision Support Systems	35	90	5	B	
		250	500	30		

Semester 7 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
ISDE323	Information Security I	35	90	5	B	
ISDE322	Internet of Things	65	85	6	E	
ISDE324	Cloud Computing				E	
ISDE325	Machine learning	65	85	6	B	
ISDC375	Operating Systems I	35	90	5	C	
ISDC327	Web Application Programming	65	85	6	B	ISDE219
CSDE423	Research Methodology	35	15	2	B	
		300	450	30		

Semester 8 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
ISDC406	Cyber-Security Principles	35	100	4	B	ISDE323
ISDC405	Deep Learning	65	85	5	B	ISDE325
ISDE333	Information Technology Governance	35	65	4	E	
ISDE414	E- Commerce				E	
ISDC309	Data Warehouse and Data Minining	35	65	4	B	
ISDC422	Operating Systems II	65	85	5	C	
ISDC407	Project	95	105	8	B	
		330	505	30		

8. Contact

Program Manager:

Khalid Shaker | Ph.D. in Computer Science | Assistant Prof.

Email: khalidalhity@uoanbar.edu.iq

Mobile no.: +964-7811061019

Program Coordinator:

Farah Maath | M.Sc. in Computer Science | Assistant Lect.

Email: farahmaath86@uoanbar.edu.iq

Mobile no.:+964-7824833623

University of Anbar

جامعة الانبار

First Cycle – Bachelor's Degree (B.Sc.) - Information Systems

بكالوريوس - نظم المعلومات

Table of Contents

Overview .1

This catalogue is about the courses (modules) given by the program of Information Systems to gain the Bachelor of Science degree. The program delivers (42) Modules with (6000) total student workload hours and 240 total ECTS. The module delivery is based on the Bologna Process.

نظرة عامة

يتناول هذا الدليل المواد الدراسية التي يقدمها برنامج نظم المعلومات للحصول على درجة بكالوريوس العلوم. يقدم البرنامج (٤٠) مادة دراسية، على سبيل المثال، مع (٦٠٠٠) إجمالي ساعات حمل الطالب و ٢٤٠ إجمالي وحدات أوروبية. يعتمد تقديم المواد الدراسية على عملية بولونيا.

	Code	Course/Module Title	ECTS	Semester	Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
Module 1	CSIT107	Structured programming	8.00	One	3	2	80	120
	Description							
	The "Structured Programming" course focuses on teaching students how to design and implement computer programs in a structured and systematic manner. This course aims to provide students with the fundamental concepts of computer programming and develop their skills in writing purposeful and							

maintainable code.
Throughout the course, you will learn the basic principles of computer programming, such as sequencing, iteration, and conditional statements. You will become familiar with program design methodologies and its structure, as well as how to analyze problems and break them down into manageable components. You will practice using appropriate tools and techniques to design and implement robust and efficient programs.
By successfully completing this course, you will gain the necessary skills to deal with programming complexities and organize code in a systematic and structured way. You will be able to build maintainable and future-proof programs, and improve the efficiency of your computer code.

Module 2	CSIT110	Fundamental of Information Technology	6.00	One	2	2	65	85

Description

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

Module 3	CSIT109	Logic Design I	6.00	One	2	4	95	55

Description

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

Module 4	ISDC115	Mathematic I	6.00	One	2	1	50	100

Description

Study of derivatives, their methods and applications, and their relationship to real problems. Teaching training students to deal with the rules and laws of derivatives and apply them in the future in a logical and correct manner

Module 5	UOA140	English (1)	4.00	One	2	0	35	65

Description

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

Module 6	CSIT108	Structured programming II	8.00	Two	3	2	80	120
		Description						

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

Module 7	CSIT112	Discrete Structures	6.00	Two	2	1	50	100
		Description						

Discrete Structures is a fundamental course within the Computer Science curriculum that introduces students to mathematical concepts and structures essential for solving complex computational problems. The course provides a bridge between discrete mathematics and its applications in computer science, laying the groundwork for algorithm design, logic, and various computational paradigms.

Module 8	CSIT111	Logic Design II	6.00	Two	2	2	65	85
		Description						

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

Module 9	ISDC116	Mathematic II	6.00	Two	2	1	50	100
		Description						

Mathematics II for Computer Science is a continuation of the mathematical foundation established in Mathematics I, tailored specifically to meet the needs of computer science students. This course explores advanced mathematical concepts and techniques that are fundamental for understanding and solving complex problems in computer science and software engineering.

Module 10	UOA137	Arabic Language	4.00	Two	2	0	35	65
		Description						

The Introductory Arabic Language course in the first stage is designed to introduce students to the Arabic language and culture. It serves as a foundation for developing basic communication skills in Arabic, fostering cultural awareness, and preparing students for more advanced language courses or interactions within Arabic-speaking communities. This course is suitable for students who have little to no prior knowledge of the Arabic language.

Module 11	ISDC207	Object Oriented Programming I	8.00	Three	3	2	80	120
		Description						
		The study of structured programming, entity programming and what is known as object-oriented programming, knowledge of injunctions and functions to prepare the student to know how to write a set of commands, knowing what are injunctions, how to build classes and objects, what the class has of properties and functions, how to build several classes and several objects, and how properties are inherited between them.						
Module 12	CSIT201	Data Structures and Algorithms	6.00	Three	2	2	65	85
		Description						
		The Data Structures and Algorithms course is a cornerstone of the Computer Science curriculum, offering an in-depth exploration of fundamental concepts and techniques essential for solving complex computational problems efficiently. This course equips students with the knowledge and skills required to design, analyze, and implement data structures and algorithms, which are fundamental to computer science and software engineering.						
Module 13	ISDE215	Computational Theory	4.00	Three	2	0	35	65
		Description						
		The Computational Theory course is a fundamental component of the Computer Science curriculum that explores the theoretical underpinnings of computation. This course delves into abstract models of computation, formal languages, and the limits of algorithmic solvability. It provides students with the theoretical foundations necessary to analyze and understand the capabilities and limitations of computers and algorithms.						
Module 14	ISDC198	Introduction to Elecrtonic information system	5.00	Three	2	0	hr/sem	90
		Description						
		The Introduction to Electronic Information Systems course is designed to provide students with a foundational understanding of electronic information systems and their role in modern computing and information management. This course explores the principles, technologies, and applications of electronic information systems, equipping students with essential knowledge and skills for managing and processing digital information.						
Module 15	ISDC202	Design and Analysis of Information Systems	5.00	Three	2	0	65	90
		Description						
		The Design and Analysis of Information Systems course is a pivotal component of the Computer Science curriculum that focuses on the principles, methodologies, and best practices for designing, developing, and analyzing complex information systems. This course empowers students with the knowledge and skills necessary to create robust, efficient, and scalable information systems that meet real-world business and technology requirements.						

Module 16	UOA135	Democracy and Human Rights	2.00	Three	1	0	25	25
	The Democracy and Human Rights course in the first stage is designed to provide students with a fundamental understanding of the concepts, theories, and historical development of democracy and human rights. This introductory course aims to foster critical thinking and awareness of the importance of these principles in contemporary global society.								
Module 17	ISDC203	Advanced Mathematics	5.00	Three	2	1	55	70
	Description								
	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.								
Module 18	ISDE211	Object Oriented Programming II	8.00	Four	3	2	80	120
	Description								
	The study of structured programming, entity programming and what is known as object-oriented programming, knowledge of injunctions and functions to prepare the student to know how to write a set of commands, knowing what are injunctions, how to build classes and objects, what the class has of properties and functions, how to build several classes and several objects, and how properties are inherited between them.								
Module 19	ISDC205	Design and Analysis of Databases	6.00	Four	2	2	65	85
	Description								
	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.								
Module 20	ISDE190	Web Technologies	6.00	Four	2	2	65	85
	Description								
	The Web Technologies course is designed to provide students with a comprehensive understanding of the technologies and principles that underlie the World Wide Web. In an era where the web plays a crucial role in communication, commerce, and information dissemination, this course equips students with the knowledge and skills necessary to design, develop, and manage modern web applications.								
Module 21	ISDE219	Design Internet Pages	6.00	Four	2	2	65	85

		Description						
		The Design Internet Pages course is designed to provide students with the knowledge and skills needed to create attractive, functional, and user-friendly web pages. In today's digital age, effective web design is crucial for businesses, organizations, and individuals. This course equips students with the tools and techniques required to design visually appealing and responsive web pages that meet modern web standards.						
Module 22	ISDC303	Numerical Analysis	6.00	Four	2	2	65	85
		Description						
		Studying the numerical analysis, methods, applications and its relationship with the real problems. Teach train the students to deal with the numerical process in the future in logic and right style.						
Module 23	UOA240	English (2)	4.00	Four	2	0	35	65
		Description						
		This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.						
Module 24	UOA140	AlBaath Party Crimes	2.00	0	1	0	15	15
		Description						
		NOT YET						
Module 24	ISDC308	Visual Programming I	8.00	Five	3	2	80	120
		Description						
		This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.						
Module 25	ISDC305	Principles Of Computer Network	6.00	Five	2	2	65	85
		Description						

	Principles of Computer Communications and Networks Detailed Syllabus for B.Tech third year First semester is covered here. This gives the details about credits, number of hours and other details along with reference books for the course. Course objectives: To understand the concept of computer communication, To learn about the networking concept, layered protocols, To understand various communications concepts, and To get the knowledge of various networking equipment.							
Module 26	ISDC306	Distributed Database Management systems	6.00	Five	2	2	65	85
	Description							
	The Distributed Database Management Systems course is a specialized offering in the field of computer science, focusing on the principles, technologies, and strategies for managing databases across distributed and interconnected environments. In today's interconnected world, where data is generated and consumed across various locations and platforms, this course equips students with the knowledge and skills required to design, deploy, and manage distributed database systems effectively.							
Module 27	ISDE389	Natural Lagnauge Processing	6.00	Five	2	2	65	85
	Description							
	The Natural Language Processing (NLP) course is designed to introduce students to the interdisciplinary field that combines computer science, artificial intelligence, and linguistics. NLP focuses on the interaction between computers and human language, enabling machines to understand, interpret, and generate human language text. This course provides students with a strong foundation in NLP techniques and applications.							
Module 28	ISDE324	Compiler	6.00	Five	2	2	65	85
	Description							
	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.							
Module 29	ISDC307	Project Management Systems	4.00	Five	2	0	35	65
	Description							
	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.							
Module 30	ISDE325	Artificial Intelligent I	30.00	Five	11	8	310	440
	Description							

	Artificial Intelligence I is an introductory course that explores the fundamental principles and techniques underlying the field of artificial intelligence (AI). This course provides students with a comprehensive introduction to AI concepts, algorithms, and applications, equipping them with the knowledge and skills needed to understand, design, and implement AI systems.							
Module 31	ISDE323	Visual Programming II	8.00	Six	3	2	80	120
	Description							
	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.							
Module 32	ISDE325	Artificial Intelligent II	7.00	Six	2	2	65	110
	Description							
	Artificial Intelligence II is an advanced course that builds upon the foundational concepts introduced in Artificial Intelligence I. This course delves deeper into the theory and applications of artificial intelligence, focusing on advanced topics, cutting-edge research, and practical AI development. It provides students with the opportunity to explore and apply more complex AI algorithms and techniques.							
Module 33	ISDC323	Data Storage Engineering	5.00	Six	2	0	35	90
	Description							
	The Data Storage Engineering course is designed to provide students with an in-depth understanding of the principles, technologies, and best practices related to data storage and management in modern computing systems. In today's data-driven world, the effective storage and retrieval of data are critical for businesses and organizations. This course equips students with the knowledge and skills needed to design, implement, and optimize data storage solutions.							
Module 34	ISDC309	Software Engineering	5.00	Six	2	0	35	90
	Description							
	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.							
Module 35	ISDC327	Data Management Systems	5.00	Six	2	0	35	90
	Description							

	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.								
Module 36	ISDC328	Decision Support Systems	5.00	Six	2	0	35	90	
	Description								
	A decision support system is an interactive computer application that has complete access to information about your organization. Each student will get "hands-on" experience with the development of a decision support system/expert system. When used, it offers comparative figures between one period and the next. It projects revenue figures based on assumptions related to product sales. A DSS is smart enough to help you understand the expenses involved in and consequences resulting from different decision alternatives								
Module 37	ISDE323	Information Security I	5.00	Seven	2	0	35	90	
	Description								
	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.								
Module 38	ISDE322	Internet of Things	6.00	Seven	2	2	65	85	
	Description								
	This course is to cover the concepts, structure, and functions of Multimedia Computing To give students a broad grounding in issue surrounding multimedia, including the role of and design of multimedia Systems which incorporate digital audio, graphics and video, underlying concepts and representations of sound, pictures and video, data compression and transmission, integration of media, multimedia authoring, and delivery of multimedia.								
Module 39	ISDE324	Cloud Computing	6.00	Seven	2	2	65	85	
	Description								
	The Cloud Computing course is designed to provide students with a comprehensive understanding of cloud technologies, their architecture, and their applications in modern computing environments. Cloud computing has revolutionized the way businesses and organizations manage and deliver IT services. This course equips students with the knowledge and skills necessary to design, deploy, and manage cloud-based solutions effectively.								
Module 40	ISDE325	Machine learning	6.00	Seven	2	2	65	85	
	Description								
	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes								

		full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.						
Module 41	ISDC375	Operating Systems I	5.00	Seven	2	0	35	90
	Description							
	Operating Systems I is a foundational course in computer science that provides students with a comprehensive introduction to the principles, design, and functioning of operating systems. Operating systems are the core software that manages computer hardware and facilitates application execution. This course equips students with the knowledge and skills needed to understand, design, and implement basic operating system components.							
Module 42	ISDC327	Web Application Programming	6.00	Seven	2	2	65	85
	Description							
	Programming of Web Applications Detailed Syllabus for B.Tech fourth year First semester is covered here. This gives the details about credits, number of hours and other details along with reference books for the course. The course covers construction and design of dynamic web pages. The emphasis lies on standardised HTML and CSS to create structure and appearance. The course also covers basic JavaScript to create a dynamic behaviour on web sites. Other parts that are covered are availability, responsive design and validation of web pages.							
Module 43	CSDE423	Research Methodology	2.00	Seven	2	0	35	15
	Description							
	The Research Methodology in Computer Science course is designed to provide students with the knowledge and skills necessary to conduct effective and rigorous research in the field of computer science. This course emphasizes the research process, methodologies, techniques, and ethical considerations, enabling students to plan, execute, and report on their research effectively.							
Module 44	ISDC406	Cyber-Security Principles	4.00	Eight	2	0	35	100
	Description							
	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.							
Module 45	ISDC405	Deep Learning	5.00	Eight	2	2	65	85
	Description							
	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.							

Module 46	ISDE333	Information Technology Governance	4.00	Eight	2	0	35	65
		Description						
	The Information Technology Governance course is designed to provide students with a comprehensive understanding of the principles, frameworks, and practices related to the governance of information technology within organizations. In today's digital age, effective IT governance is crucial for ensuring that IT resources are aligned with business goals, risks are managed, and compliance requirements are met. This course equips students with the knowledge and skills needed to establish and maintain effective IT governance practices.							
Module 47	ISDE414	E- Commerce	4.00	Eight	2	0	35	65
		Description						
	This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.							
Module 48	ISDC309	Data Warehouse and Data Minining	4.00	Eight	2	0	35	65
		Description						
	The Data Warehouse and Data Mining course is designed to provide students with a deep understanding of the concepts, technologies, and techniques related to data warehousing and data mining. In today's data-driven world, organizations rely on these disciplines to extract valuable insights from vast amounts of data. This course equips students with the knowledge and skills required to design, implement, and leverage data warehouses and data mining tools effectively.							
Module 49	ISDC422	Operating Systems II	5.00	Eight	2	2	65	85
		Description						
	Operating Systems II is an advanced course that continues to explore the principles, design, and functioning of operating systems, building upon the knowledge acquired in Operating Systems I. This course delves deeper into operating system concepts, advanced topics, and hands-on implementation, providing students with a comprehensive understanding of modern operating systems and their components.							
Module 50	ISDC407	Project	8.00	Eight	3	3	95	105
		Description						
	The Project in Computer Science course is a capstone experience designed to integrate and apply the knowledge and skills acquired throughout the computer science program. It offers students the opportunity to work on a substantial project that addresses real-world challenges or explores advanced topics in computer science. This course serves as a culmination of their academic journey, allowing them							

to demonstrate their expertise in planning, designing, developing, and presenting a significant computing project.							
Laboratory	0	0.00	0	C	0	Structured SWL	0

Program Manager:
Khalid Shaker | Ph.D. in Computer Science | Assistant Prof.
Email: khalidalhity@uoanbar.edu.iq
Mobile no.: +964-7811061019

Program Coordinator:
Farah Maath | M.Sc. in Computer Science | Assistant Lect.
Email: farahmaath86@uoanbar.edu.iq
Mobile no.:+964-7824833623

MODULE DESCRIPTOR FORM

Module Information				
Module Title	**Structured programming I**		**Module Type**	TYPE C
Module Code	ISSP101	**ECTS Credits**		8
Module Level	UGI	**Semester of Delivery**		One
Administering Department	IS	**Faculty**	CSIT	
Module Leader	Mahmoud Hilal	**e-mail**	mah2005hilal@uoanbar.edu.iq	
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**		PhD
Module Tutor		**e-mail**		
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	DD/MM/YY	**Version Number**	1.0	

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	Learn how to use the Advanced Tools helps programmers write fast, portable programs The main principles of programming and the development of programming languages Learn the principles of Structure programming
Module Learning Outcomes	A1- Knowledge and understanding A2. Learn algorithms A3. Learn flowcharts

Indicative Contents	A4. Learn structured programming A5. Learn Python programming

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	5.4
Unstructured workload (h/w)	8
Total workload (h/w)	13.4

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	3	6% (6)	3,7 and 11	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	15% (15)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	50% (50)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?

Required Texts	"Starting Out with Python plus My Programming Lab with Pearson Text --Access Card Package (3rd Edition) Tony Gaddis ISBN-13: 978-0133862256"	Yes/No
Recommended Texts		Yes/No
Websites		

Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
First	3 h.	Programming principles	Overview to Programming Language	Explain Menu, Getting Started with python	
Second	3 h.	Algorithms	Algorithms and Flow Charts	Algorithms and Flow Charts	
Third	3 h.	Introduction to Programming	Storing and Manipulating Values Calling Functions Comments Formatting Values Working with Strings Exercises	Storing and Manipulating Values Calling Functions Comments Formatting Values Working with Strings Exercises	Quiz
Fourth	3 h.	Unary Operators	Unary Minus Increment and /decrement Operators.	Program of Unary Minus Increment and /decrement Operators.	
Fifth	3 h.	Operational Operators	Operational Assignment Operators Relational Operators Logical Operators. Bitwise Operator Logical Operators. Bitwise Operator	Program Operational Assignment Operators Relational Operators Program Logical Operators. Bitwise Operator	
Sixth	3 h.	Selection Statements	Boolean Logic If Statements If-Else Statements	Programs in Lectures	Quiz
Seventh	3 h.	Selection Statements	If-Elif Statements If-Elif-Else Statements Nested If Statements	Programs in Lectures	

Ninth	3 h.	To evaluate the students	Monthly exam		By exam
Ninth	3 h.	Repetition	While Loops		By exam
Tenth	3 h.	Repetition	For Loops	Programs in Lectures	
Eleventh	3 h.	Repetition	Nested Loops Exercises	Programs in Lectures	
Twelfth	3 h.	Functions	Functions with Parameters Variables in Functions	Programs in Lectures	
Thirteenth	3 h.	Functions	Return Values	Programs in Lectures	
Fourteenth	3 h.	Functions	Importing Functions into Other Programs Exercises	Programs in Lectures	
Fifteenth	3 h.	To evaluate the students	Monthly exam		By exam

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A - Excellent**	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX – Fail**	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

<table>
<tr><td colspan="5" align="center">Module Information</td></tr>
<tr><td>Module Title</td><td colspan="2">Fundamental of Information Technology</td><td>Module Type</td><td>Type C</td></tr>
<tr><td>Module Code</td><td colspan="2">ISFI102</td><td>ECTS Credits</td><td>6</td></tr>
<tr><td>Module Level</td><td colspan="2">UGI</td><td>Semester of Delivery</td><td>One</td></tr>
<tr><td>Administering Department</td><td colspan="2">IS</td><td>Faculty</td><td>CSIT</td></tr>
<tr><td>Module Leader</td><td colspan="2">Mohanad Abdulsalam Younis gedan</td><td>e-mail</td><td>mohanad.abdul@uoanbar.edu.iq</td></tr>
<tr><td>Module Leader's Acad. Title</td><td colspan="2">Lecturer</td><td>Module Leader's Qualification</td><td>Ph. D</td></tr>
<tr><td>Module Tutor</td><td colspan="2"></td><td>e-mail</td><td></td></tr>
<tr><td>Peer Reviewer Name</td><td colspan="2">/</td><td>e-mail</td><td>/</td></tr>
<tr><td>Review Committee Approval</td><td>DD/MM/YY</td><td>Version Number</td><td colspan="2">2.0</td></tr>
</table>

<table>
<tr><td colspan="2" align="center">Relation With Other Modules</td></tr>
<tr><td>Pre-requisites</td><td>/</td></tr>
<tr><td>Co-requisites</td><td>/</td></tr>
<tr><td colspan="2" align="center">Module Aims, Learning Outcomes and Indicative Contents</td></tr>
<tr><td>Module Aims</td><td>
- Provide a basic knowledge of computer hardware and software
- Introduce the business areas to which computers may be applied.
- Provide an introduction to business organization and information systems.
- Develop the skills in network & communication, which play an important part in business computing and information processing.
</td></tr>
<tr><td>Module Learning</td><td>A-Knowledge and Understanding</td></tr>
</table>

Outcomes	A1. The student should understand the architecture of any IT systems. A2. The student should understand the parts of hardware. A3. The student should understand the system software. A4. The student should understand the architecture of networks, protocols and communications devices.
Indicative Contents	
Learning and Teaching Strategies	
Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	3.4
Unstructured workload (h/w)	5.6
Total workload (h/w)	10

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	3	6% (6)	3,7 and 11	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	15% (15)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	50% (50)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Introduction of Computers and Programming
Week 2	Brief history of computer
Week 3	Generation of Computers & Computer hierarchy
Week 4	Basic Computer Components
Week 5	Computer function (fetch cycle, interrupt cycle, I/O function
Week 6	Semiconductor main memory (RAM, ROM, CACHE)
Week 7	**Mid-Term Exam**
Week 8	Computer Software (application software)
Week 9	External & Internal memory
Week 10	Telecommunications system & Network
Week 11	Topology of a network
Week 12	Layering model
Week 13	Protocols
Week 14	addressing communications

Week 15	Preparatory Week
Week 16	Final Exam

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information				
Module Title	**Logic Design I**		**Module Type**	TYPE C
Module Code	ISLD103	**ECTS Credits**		6
Module Level	UGI	**Semester of Delivery**		One
Administering Department	IS	**Faculty**	CSIT	
Module Leader	Muntaser Abdulwahed Salman Abdulaziz	**e-mail**	Co.montasser.salman@uoanbar.edu.iq	
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**		PhD.
Module Tutor		**e-mail**		
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	DD/MM/YY	**Version Number**	2.0	

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	-The student should understand number systems and codes and the conversion between them. -The student should understand the Boolean expression and how to apply it. -The student should recognize among different logic gates and how to use them. -The student should understand how to design a logic circuit. -The student should understand using K-map for simplification.

Module Learning Outcomes	A-Knowledge and Understanding A1. The student should understand number systems and codes and the conversion between them. A2. The student should understand the Boolean expression and how to apply it. A3. The student should recognize among different logic gates and how to use them. A4. The student should understand how to design a logic circuit. A5. The student should understand using K-map for simplification	
Indicative Contents		

Learning and Teaching Strategies	
Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery	
Structured workload (h/w)	6.4
Unstructured workload (h/w)	3.6
Total workload (h/w)	10

Module Evaluation				
	Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Quizzes	3	6% (6)	3,7 and 11	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	15% (15)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	50% (50)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to number system
Week 2	Conversion between systems
Week 3	Codes and conversion between them
Week 4	Boolean expression
Week 5	Logic gates
Week 6	Logic gates design
Week 7	**Mid-Term Exam**
Week 8	NAND gates
Week 9	NOR gates
Week 10	Sum of product form
Week 11	Product Of sum form
Week 12	Product Of sum form
Week 13	K-map

Week 14	K-map
Week 15	**Preparatory Week**
Week 16	**Final Exam**

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	

Note:

NB 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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information			
Module Title	**Mathematic I**	**Module Type**	Type B
Module Code	**CCIT060**	**ECTS Credits**	6
Module Level	**UGI**	**Semester of Delivery**	One
Administering Department	**IS**	**Faculty**	CSIT
Module Leader	**Muhammad Rabie**	**e-mail**	**mohammed.rabeea@uoanbar.edu.iq**
Module Leader's Acad. Title	**Lecturer**	**Module Leader's Qualification**	PhD.
Module Tutor		**e-mail**	
Peer Reviewer Name	/	**e-mail**	/
Review Committee Approval	DD/MM/YY	**Version Number**	2.0

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	A - Understand the concept of mathematics, its methods and applications. B - Explain the concept of derivatives and integration and their applications. C - Understand the relationship between extracts and integration and the real problems and how to deal with them
Module Learning Outcomes	A-Knowledge and Understanding A 1. Acquiring the ability and skill to distinguish the bases of derivatives methods and dealing with them A 2. Acquire the capabilities and skills of applications of derivatives

Indicative Contents	A3. Dealing with different methods of finite and indefinite derivatives B. Subject-specific skills B1. Summer Training B2. Fourth year projects B3. Scientific projects

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	3.3
Unstructured workload (h/w)	6.7
Total workload (h/w)	10

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	2	6% (6)	5 and 10	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	5% (5)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	60% (60)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	The Definition of the Derivative Interpretation of the Derivative
Week 2	Properties of Derivative , Some laws of derivatives
Week 3	Properties of Derivative , Some laws of derivatives
Week 4	**Derivatives of the six trig functions**
Week 5	**Exponential Functions, Logarithm Functions**
Week 6	**Inverse Sine, Inverse cosine, Inverse tangent, Alternate Notation**
Week 7	**Mid-Term Exam**
Week 8	**Inverse Sine, Inverse cosine, Inverse tangent, Alternate Notation**
Week 9	These are the six hyperbolic trig Functions .and They are defined as
Week 10	There are two forms of the chain rule
Week 11	Defined , formula, and used the chain rule
Week 12	first derivative, second derivative, third derivative.
Week 13	the properties of logarithms

Week 14	Introduction, Critical Points and Minimum and Maximum Values
Week 15	**Preparatory Week**
Week 16	**Final Exam**

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

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	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information				
Module Title	**English (1)**		**Module Type**	Type S
Module Code	**UOA003**	**ECTS Credits**		2
Module Level	**UGI**	**Semester of Delivery**		One
Administering Department	**IS**	**Faculty**	CSIT	
Module Leader	**Akeel Abdulraheem Thulnoon Zoead**	**e-mail**	akeelalhadithy@uoanbar.edu.iq	
Module Leader's Acad. Title	**Assistant Professor**	**Module Leader's Qualification**		PhD.
Module Tutor		**e-mail**		
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	DD/MM/YY	**Version Number**	2.0	

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	Enhancing English speaking, reading and writing Memorize a big number of vocabularies Helping students to deal with the English language in easier ways
Module Learning Outcomes	A1. Reading A2. writing A3. Speaking. A4. Listening B. Subject-specific skills

Indicative Contents	B1. Learn scanning and skimming skills in reading B2. Right pronunciation B3. Vocabularies

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	2.34
Unstructured workload (h/w)	4.34
Total workload (h/w)	6.68

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	2	6% (6)	5 and 10	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	5% (5)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	60% (60)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the

		Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Unit 1: Hello
Week 2	Unit 2:Your world
Week 3	Unit 3:All about you
Week 4	Unit 4: Family and friends
Week 5	Unit 5: The way I live
Week 6	Unit 6: Every Day
Week 7	**Mid-Term Exam**
Week 8	Unit 7: My favourites
Week 9	Unit 8: Where I live
Week 10	Unit 9:Times past
Week 11	Unit 10:we had a great time!
Week 12	English for Computer Science
Week 13	Listening
Week 14	Revision of most important topics in the subject
Week 15	**Preparatory Week**

Week 16	Final Exam

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
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Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
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Note:				

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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	**الحريات وحقوق الانسان**		**Module Delivery**	
Module Type	S		☒ Theory ☐ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	**UOA005**			
ECTS Credits	**2**			
SWL (hr/sem)	**50**			
Module Level	1	**Semester of Delivery**		1
Administering Department	IS	**College**	Type College Code	
Module Leader	Name	**e-mail**	E-mail	
Module Leader's Acad. Title		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)	**e-mail**	E-mail	
Peer Reviewer Name	Name	**e-mail**	E-mail	
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	أ . تعليم الطلبة على أساسيات حقوق الإنسان وقوانينها. ب. التعرف على الحقوق وأهم الإشكاليات والتحديات التي تواجهها ج- تحديد وفهم المفاهيم المتعلقة بالحريات، بما في ذلك الحقوق الفردية والحريات الشخصية. د. تنمية القدرة على التفكير النقدي حول القضايا المتعلقة بالحريات والحقوق الفردية.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- أن يعرف الطالب مفهوم الحقوق وقوانينها وتطبيقاتها . 2- أن يعرف الطالب كيفية المشاركة في نشر الحقوق وتطبيقها بالعمل الواقعي الحقيقي. 3- القدرة على استخدام الحقوق وسيلة من أجل التعايش السلمي بين مكونات المجتمع وجميع المخلوقات . 4- القدرة على مشاركة الآخرين في نشر هذه الحقوق . 5- القدرة على تحليل وتعريف مفهوم الحرية والتمييز بين أنواع مختلفة من الحريات. 6- التفاعل مع قضايا الحريات على الصعيدين الوطني والدولي والتأثير في تشكيل الرأي العام.
Indicative Contents المحتويات الإرشادية	الحقوق والحريات الأساسية وغير الأساسية الحقوق والحريات المدنية الحقوق السياسية حقوق الانسان والقانون الدولي الإنساني

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

Strategies	1- المشاركة بالتحضير في قاعة الدرس 2- طريقة الأسئلة والأجوبة في قاعة الدرس 3- الواجبات 4- التقارير

Student Workload (SWL)
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1		Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	60% (60)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	تعريف الحقوق
Week 2	أنواع حقوق الانسان
Week 3	الحقوق الأساسية وغير الأساسية
Week 4	- الحقوق المدنية , الحقوق السياسية
Week 5	الحقوق الاقتصادية والاجتماعية والثقافية الحقوق الفردية والحقوق الجماعية
Week 6	طائفة الحقوق الجديدة حقوق الانسان والقانون الدولي الإنساني العلاقة بين حقوق الانسان والقانون الدولي الانساني
Week 7	امتحان
Week 8	ماهو مفهوم الحريات :مصطلح الحرية والحريات العامة
Week 9	التطور في مفهوم الحريات العامة
Week 10	أشكال الحريات العامة وأنواعه
Week 11	النظام القانوني للحريات العامة
Week 12	تنظيم الحريات العامة من قبل السلطات العامة

Week 13	ضمانات الحريات العامة
Week 14	الحريات في الفكر السياسي الحديث
Week 15	الامتحان النهائي

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Diamond L. & M. F. Plattner, eds., (2009), Democracy. A Reader, Baltimore, Johns Hopkins University Press.	yes
Recommended Texts	مفهوم الحريات العامة وحقوق الانسان ، إطارها التاريخي والفكري والفلسفي، وضماناتها الأساسية- 2010	
Websites	**http://ghrorg-learning.blogspot.com**	

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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information				
Module Title	Structured programming II		**Module Type**	TYPE B
Module Code	CSIT108	**ECTS Credits**		8
Module Level	UGI	**Semester of Delivery**		Two
Administering Department	IS	**Faculty**	CSIT	
Module Leader	Akeel Abdulraheem Thulnoon Zoead	**e-mail**	akeelalhadithy@uoanbar.edu.iq	
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**		PhD
Module Tutor		**e-mail**		
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	DD/MM/YY	**Version Number**	2.0	

Relation With Other Modules	
Pre-requisites	CSIT107
Co-requisites	

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	Learn how to use the Advanced Tools helps programmers write fast, portable programs The main principles of programming and the development of programming languages Learn the principles of Structure programming

Module Learning Outcomes	A- Knowledge and Understanding A1. Learn the algorithms A2.Learn the Flowchart A3.Learn C++ Programming
Indicative Contents	

Learning and Teaching Strategies	
Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery	
Structured workload (h/w)	5.34
Unstructured workload (h/w)	8
Total workload (h/w)	13.34

Module Evaluation				
	Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Quizzes	3	6% (6)	3,7 and 11	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	15% (15)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	50% (50)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Passing Parameters. Passing by Value. Passing by Reference.
Week 2	Pointers
Week 3	Arrays. Array of One Dimension: Declaration of Arrays.
Week 4	Elements
Week 5	Initializing Array
Week 6	Accessing Array Elements.
Week 7	**Mid-Term Exam**
Week 8	Read / Write / Process Array Elements.
Week 9	Array of Two Dimension: Declaration of 2D-Arrays.
Week 10	Read / Write / Process Array Elements.
Week 11	Member Function of String stdlib Library.
Week 12	Structures. The Three Ways for Declare the Structure.
Week 13	Array of Structures.
Week 14	The Files

Week 15	Preparatory Week
Week 16	Final Exam

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A** - Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX** – Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

MODULE DESCRIPTOR FORM

Module Information

Module Title	DISCRETE STRUCTURE	**Module Type**	TYPE B
Module Code	CSIT112	**ECTS Credits**	6
Module Level	UGI	**Semester of Delivery**	First
Administering Department	IS	**Faculty**	CSIT
Module Leader	Mohanad Abdulsalam younis gedan	**e-mail**	mohanad.abdul@uoanbar.edu.iq
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**	Ph. D
Module Tutor		**e-mail**	
Peer Reviewer Name	/	**e-mail**	/
Review Committee Approval	DD/MM/YY	**Version Number**	2.0

Relation With Other Modules

Pre-requisites	/
Co-requisites	/

Module Aims, Learning Outcomes and Indicative Contents

Module Aims	1-To convey the basic concepts of data structures 2-To understand basic concepts about stacking, queues, lists, trees, and graphs 3-It helps the student to know how to deal with data and how to choose the appropriate graphic structure for it 4-Data structure helps the student to understand the nature of the problem at a deeper level and thus better understanding the world for solving programming problems

Module Learning Outcomes	A- Knowledge and Understanding A1- Know the concept of data structures and how to apply them A2- Understand how to use data structures to know the data to be organized in program memory A3- Understand and know the use of data structures in different real applications A4- Understand and know the methods of different data structures B. Subject-specific skills 1. Providing the student with the skill of applying various data 2- Providing the student with the skill of structuring programs 3- Providing the student with the skill of planning any problem and solving it programmatically 4- Providing the student with the skill of dealing with any type of data
Indicative Contents	

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	3.4
Unstructured workload (h/w)	6.6
Total workload (h/w)	10

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	2	6% (6)	5 and 10	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	5% (5)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	60% (60)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction
Week 2	General concept
Week 3	Array Data structure
Week 4	Stack data structure
Week 5	Expression Parsing
Week 6	Solving homework
Week 7	**Mid-Term Exam**
Week 8	Queue data structure
Week 9	circular Queue data structure
Week 10	Pointer &Structure
Week 11	linked list data structure
Week 12	linked list operations
Week 13	Doubly linked list data structure
Week 14	Doubly linked list operations

Week 15	Preparatory Week
Week 16	Final Exam

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	ECTS Grade	% of Students/Marks	Definition	GPA
Success Group (50 - 100)	**A** - Excellent	Best 10%	Outstanding Performance	5
	B - Very Good	Next 25%	Above average with some errors	4
	C - Good	Next 30%	Sound work with notable errors	3
	D - Satisfactory	Next 25%	Fair but with major shortcomings	2
	E - Sufficient	Next 10%	Work meets minimum criteria	1
Fail Group (0 – 49)	**FX** – Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	

Note:

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Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

<table>
<tr><td colspan="4" align="center">Module Information</td></tr>
<tr><td>Module Title</td><td>Logic Design II</td><td>Module Type</td><td>Tᴏᴘᴇ B</td></tr>
<tr><td>Module Code</td><td>CSIT111</td><td>ECTS Credits</td><td>6</td></tr>
<tr><td>Module Level</td><td>UGI</td><td>Semester of Delivery</td><td>Two</td></tr>
<tr><td>Administering Department</td><td>IS</td><td>Faculty</td><td>CSIT</td></tr>
<tr><td>Module Leader</td><td>Muntaser AbdulWahed Salman Abdulaziz</td><td>e-mail</td><td>co.montasser.salman@uoanbar.edu.iq</td></tr>
<tr><td>Module Leader's Acad. Title</td><td>Lecturer</td><td>Module Leader's Qualification</td><td>PhD.</td></tr>
<tr><td>Module Tutor</td><td></td><td>e-mail</td><td></td></tr>
<tr><td>Peer Reviewer Name</td><td>/</td><td>e-mail</td><td>/</td></tr>
<tr><td>Review Committee Approval</td><td>DD/MM/YY</td><td>Version Number</td><td>2.0</td></tr>
</table>

<table>
<tr><td colspan="2" align="center">Relation With Other Modules</td></tr>
<tr><td>Pre-requisites</td><td>CSIT109</td></tr>
<tr><td>Co-requisites</td><td></td></tr>
<tr><td colspan="2" align="center">Module Aims, Learning Outcomes and Indicative Contents</td></tr>
<tr><td>Module Aims</td><td>
● The student should understand encoder, decoder and multiplexers
● The student should understand synchronous logic circuit
● The student should understand flip-flops and how to use them
● The student should understand registers and their types
● The student should understand counters and their types
● The student should understand ROM and PLA implementation
</td></tr>
<tr><td>Module Learning Outcomes</td><td>
A1. The student should understand encoder, decoder and multiplexers
A2. The student should understand flip-flops and how to use them.
</td></tr>
</table>

	A3. The student should understand registers and their types. A4. The student should understand counters and their types. A5. The student should understand ROM and PLA implementation.	
Indicative Contents		

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	4.4
Unstructured workload (h/w)	5.6
Total workload (h/w)	10

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	3	6% (6)	3,7 and 11	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	15% (15)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	50% (50)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Synchronous logic gates
Week 2	Adder and subtractor circuits
Week 3	Comparator circuits
Week 4	Encoders and multiplexers
Week 5	Multiplexers
Week 6	First month exam
Week 7	**Mid-Term Exam**
Week 8	Flip-flops
Week 9	SR flip flop and j k flip flop
Week 10	T flip flop and D flip flop
Week 11	Second month exam
Week 12	Registers design
Week 13	Counters design
Week 14	ROM PLA State plan

Week 15	Preparatory Week
Week 16	Final Exam

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	ECTS Grade	% of Students/Marks	Definition	GPA
Success Group (50 - 100)	**A** - Excellent	Best 10%	Outstanding Performance	5
	B - Very Good	Next 25%	Above average with some errors	4
	C - Good	Next 30%	Sound work with notable errors	3
	D - Satisfactory	Next 25%	Fair but with major shortcomings	2
	E - Sufficient	Next 10%	Work meets minimum criteria	1
Fail Group (0 – 49)	**FX** – Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

MODULE DESCRIPTOR FORM

Module Information					
Module Title	Mathematic II			**Module Type**	TYPE C
Module Code		ISDC116	**ECTS Credits**		6
Module Level		UGI	**Semester of Delivery**		One
Administering Department		IS	**Faculty**	CSIT	
Module Leader	Mohammed Rabeea Al-Dahhan		**e-mail**	mohammed.rabeea@uoanbar.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**		PhD.
Module Tutor			**e-mail**		
Peer Reviewer Name	/		**e-mail**	/	
Review Committee Approval	DD/MM/YY		**Version Number**	2.0	

Relation With Other Modules	
Pre-requisites	ISDC115
Co-requisites	/
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	In a computer science department, the specific aims of a Mathematics II module can vary depending on the curriculum and the intended learning outcomes. However, here are some common aims of a Mathematics II module in a computer science department: Advanced Algebra and Calculus: The module aims to provide a deeper understanding of advanced algebraic concepts such as matrices, vectors, and complex numbers. It also covers calculus topics including limits, derivatives, and integrals.

	Discrete Mathematics: Discrete mathematics is essential in computer science as it provides the foundation for many algorithms, data structures, and problem-solving techniques. The module aims to introduce topics like logic, set theory, combinatorics, graph theory, and formal languages. Probability and Statistics: Probability theory and statistics play a crucial role in various aspects of computer science, such as machine learning, data analysis, and algorithm design. The module aims to cover probability concepts, random variables, statistical distributions, hypothesis testing, and basic statistical analysis.
Module Learning Outcomes	Understanding Advanced Algebra and Calculus: Students should demonstrate a solid understanding of advanced algebraic concepts, such as matrices, vectors, and complex numbers. They should be able to apply calculus techniques, such as limits, derivatives, and integrals, in the context of computer science problems. Applying Discrete Mathematics: Students should be able to apply discrete mathematics concepts and techniques to solve problems in computer science. This includes understanding and using logic, set theory, combinatorics, graph theory, and formal languages in algorithm design and analysis. Analyzing Probability and Statistics: Students should be able to analyze and interpret probabilistic and statistical data relevant to computer science problems. They should understand concepts such as probability distributions, random variables, hypothesis testing, and basic statistical analysis. Using Numerical Methods: Students should be proficient in using numerical methods to solve computational problems encountered in computer science. This includes employing numerical approximation techniques, solving equations numerically, and performing numerical integration.
Indicative Contents	
Learning and Teaching Strategies	
Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	3.3
Unstructured workload (h/w)	6.7
Total workload (h/w)	10

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	2	6% (6)	5 and 10	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	5% (5)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	60% (60)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Topic: Integral Calculus - Techniques of Integration Integration by substitution Integration by parts Trigonometric substitutions

Week 2	Topic: Integral Calculus - Techniques of Integration Integration by substitution Integration by parts Trigonometric substitutions
Week 3	Topic: Integral Calculus - Techniques of Integration Integration by substitution Integration by parts Trigonometric substitutions
Week 4	Topic: Integral Calculus - Advanced Integration Techniques Partial fraction decomposition Integration using trigonometric identities Integration of rational functions
Week 5	Topic: Integral Calculus - Advanced Integration Techniques Partial fraction decomposition Integration using trigonometric identities Integration of rational functions
Week 6	Topic: Integral Calculus - Advanced Integration Techniques Partial fraction decomposition Integration using trigonometric identities Integration of rational functions
Week 7	Mid-Term Exam
Week 8	Topic: Integral Calculus - Advanced Integration Techniques Partial fraction decomposition Integration using trigonometric identities Integration of rational functions
Week 9	Topic: Integral Calculus - Advanced Integration Techniques Partial fraction decomposition Integration using trigonometric identities Integration of rational functions
Week 10	Topic: Integral Calculus - Advanced Integration Techniques Partial fraction decomposition Integration using trigonometric identities Integration of rational functions

Week 11	Topic: Integral Calculus - Advanced Integration Techniques Partial fraction decomposition Integration using trigonometric identities Integration of rational functions
Week 12	Topic: Integral Calculus - Advanced Integration Techniques Partial fraction decomposition Integration using trigonometric identities Integration of rational functions
Week 13	Topic: Integral Calculus - Advanced Integration Techniques Partial fraction decomposition Integration using trigonometric identities Integration of rational functions
Week 14	Topic: Review and Practice Comprehensive review of topics covered Problem-solving exercises and practice problems Preparation for the final assessment
Week 15	**Preparatory Week**
Week 16	**Final Exam**

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A** - Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX** – Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information			
Module Title	Arabic Language	**Module Type**	TYPE B
Module Code	UOA137	**ECTS Credits**	4
Module Level	UGI	**Semester of Delivery**	Two
Administering Department	IS	**Faculty**	CSIT
Module Leader	Saad Ibrahim Ahmed Hussein	**e-mail**	Saad.ibrahim@uonbar.edu.iq
Module Leader's Acad. Title	Assistant Professor	**Module Leader's Qualification**	Ph. D
Module Tutor		**e-mail**	
Peer Reviewer Name	/	**e-mail**	/
Review Committee Approval	DD/MM/YY	**Version Number**	2.0

Relation With Other Modules	
Pre-requisites	/
Co-requisites	
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	تعليم الطلبة على أساسيات اللغة العربية وقواعدها تعليم الطلبة على كيفية الأعراب
Module Learning Outcomes	**أن يتعرف الطالب على قواعد اللغة العربية** أن يعرف الطالب كيفية بناء الجمل واستخراجها للعنوان المطلوب
Indicative Contents	

<table>
<tr><td colspan="2" align="center">Learning and Teaching Strategies</td></tr>
<tr>
<td>Strategies</td>
<td>The main strategy that will be adopted in delivering this module are:
1. Power point presentation (Data show).
2. Explanation on the white board using different color markers.
3. Discussions with the student during teaching.
4. Interaction with students through daily problems practice through lecture.
5. Solve different problems with more exercises.
6. Submit assignment that develop student learning.</td>
</tr>
</table>

<table>
<tr><td colspan="2" align="center">Module Delivery</td></tr>
<tr><td>Structured workload (h/w)</td><td>2.3</td></tr>
<tr><td>Unstructured workload (h/w)</td><td>4.3</td></tr>
<tr><td>Total workload (h/w)</td><td>6.6</td></tr>
</table>

<table>
<tr><td colspan="5" align="center">Module Evaluation</td></tr>
<tr>
<td></td>
<td>Time/Number</td>
<td>Weight (Marks)</td>
<td>Week Due</td>
<td>Relevant Learning Outcome</td>
</tr>
<tr><td>Quizzes</td><td>2</td><td>6% (6)</td><td>5 and 10</td><td></td></tr>
<tr><td>Assignments</td><td>2</td><td>6% (6)</td><td>2 and 12</td><td></td></tr>
<tr><td>Projects / Lab.</td><td>1</td><td>5% (5)</td><td>Continuous</td><td></td></tr>
<tr><td>Report</td><td>1</td><td>5% (5)</td><td>13</td><td></td></tr>
<tr><td>Midterm Exam</td><td>2 hr</td><td>18% (18)</td><td>7</td><td></td></tr>
<tr><td>Final Exam</td><td>3 hr</td><td>60% (60)</td><td>16</td><td></td></tr>
<tr><td>Total</td><td></td><td>100% (100 Marks)</td><td></td><td></td></tr>
</table>

<table>
<tr><td colspan="3" align="center">Learning and Teaching Resources</td></tr>
<tr>
<td></td>
<td align="center">Text</td>
<td align="center">Available in the Library?</td>
</tr>
<tr><td>Required Texts</td><td></td><td>Yes/No</td></tr>
<tr><td>Recommended Texts</td><td></td><td>Yes/No</td></tr>
<tr><td>Websites</td><td></td><td></td></tr>
</table>

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	العدد تذكيره وتأنيثه
Week 2	الأعداد المفردة والمركبة
Week 3	ألفاظ العقود و الأعداد (مئة ، ألف ، مليون)
Week 4	تعريف العدد وتنكيره
Week 5	ما يصاغ من العدد على وزن فاعل
Week 6	كتابة الهمزة المتوسطة والمتطرفة
Week 7	Mid-Term Exam
Week 8	كتابة الألف اللينة
Week 9	كتابة التاء المربوطة والمبسوطة
Week 10	كتابة الضاد والظاء
Week 11	اللامات وأنواعها
Week 12	الهاءات وأنواعها
Week 13	النونات وأنواعها
Week 14	استعمالات (ما ، من) والفرق بين (أما ، إما)
Week 15	**Preparatory Week**
Week 16	**Final Exam**

APPENDIX:

UNIVERSITYof Anbar
GRADING SCHEME

Group	ECTS Grade	% of Students/Marks	Definition	GPA
Success Group (50 - 100)	**A** - Excellent	Best 10%	Outstanding Performance	5
	B - Very Good	Next 25%	Above average with some errors	4
	C - Good	Next 30%	Sound work with notable errors	3
	D - Satisfactory	Next 25%	Fair but with major shortcomings	2
	E - Sufficient	Next 10%	Work meets minimum criteria	1
Fail Group (0 – 49)	**FX** – Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	

Note:

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University of Anbar
Diploma Supplement

Anbar, Ramadi, Iraq

Phone No.:

e-mail: Contact@uoanbar.edu.iq

URL: https://www.uoanbar.edu.iq/

This Diploma Supplement follows the model developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all sections should be provided. Where information is not provided, an explanation should give the reason why.

---

1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1.1 First Name:

1.2 Second Name:

1.3 Third Name:

1.4 Date of Birth:

1.5 Place of Birth:

1.6 Student Identification Number:

1.7 National ID number:

---

2. INFORMATION IDENTIFYING THE QUALIFICATION

2.1 Name of the Qualification:

2.2 Main Field of the Study of the Qualification:

2.3 Name and Status of the Awarding Institution:

2.4 Language of Instruction/ Examination:

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3. INFORMATION ON THE LEVEL OF QUALIFICATION

3.1 Level of Qualification

First Cycle (Bachelor's Degree)

3.2 Official Length of the Programme

4 years – 8 Semesters

3.3 Access Requirements

High School Diploma – Placement through the National Central Admission Requirements

4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

4.1　Study System:

Bologna process

4.2　Mode of Study

First Cycle (Bachelor's Degree)

4.3　Program Requirements

A Student is required to have a minimum CGPA of 50% and no falling grades

4.4　Minimum Credits for Semester, Year and Graduation (ECTS)

30 ECTS/Semester | 60 ECTS/Year | 240 ECTS/Programme | 1 ECTS = 25 hrs

4.5　Student Learning Outcomes

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 and inclusive 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

4.6 Programme Details and the Individual Grade/Marks Obtained

Module Code	Module Name	Type	Mark Grade ECTS
Semester 1			
CSDC110	Computer Technology	Core	6
CSDC111	Programming in C++ I	Core	8
CSDC112	Logic Design I	Core	6
CCIT060	Mathematics	Basic	6
UOA003	English Language I	Support	2
UOA005	Democracy and Human Rights	Support	2
Grade Point Average (GPA) = (−)		Total ECTS	30
Semester 2			
CSDC120	Microprocessors	Core	6
CCIT061	Discrete Structures	Basic	6
CSDC121	Programming in C++ II	Core	8
CSDC122	Logic Design II	Core	6
UOA001	Arabic Language I	Support	2
CSDC123	Communication Skills	Core	2
Grade point Average (GPA) = (−)		Total ECTS	30
Semester 3			
CSDC210	Database	Core	7
CSDC211	Object Oriented Programming	Core	8
CSDC212	Data Structures	Core	7
CSDC213	Advanced Mathematics	Core	4
UOA006	The crimes of the defunct Ba'ath party	Support	2
UOA002	Arabic Language II	Support	2
Grade Point Average (GPA) = (−)		Total ECTS	30
Semester 4			
CSDC220	Computational Theory	Core	5
CSDC221	python	Core	7
CSDC222	Algorithms	Core	6
CCIT062	Numerical Analysis	Basic	4
CCIT063	Computer Networks	Support	6
UOA004	English Language 2	Support	2
GPA = (−)		Total ECTS	30
Semester 5			
CSDC310	Visual Programming	Core	6
CSDC311	Computer Graphics	Core	6
CSDC312	Computer Architecture	Core	6
CSDC321	Wireless Networks	Core	6
CSDC323	Mobile Applications Programming	Core	6
Grade Point average (GPA) = (−)		Total ECTS	30

CSDC320	Multimedia	Core		7
CSDE223	Internet of Things	Elective		6
CSDC322	Compilers	Core		7
CSDC313	Software Engineering	Core		6
UOA019	Research methodology	Basic		4

Grade Point Average (GPA) = (–)		Total ECTS	30

Semester 7

CSDC410	Operating Systems I	Core		6
CSDC411	Computer Security 1	Core		6
CSDC412	Artificial Intelligence	Core		6
CSDC413	Digital Image Processing	Core		6
CSDE414	Game Programming	Elective		6

Grade Point Average (GPA) = (–)		Total ECTS	30

Semester 8

CSDC420	Operating Systems II	Core	95	A	5
CSDC421	Computer Security II	Core	87	B	5
CSDC422	Machine Learning	Core	76	C	6
CSDC423	Web Development	Core	65	D	6
UOA020	Project	Basic	65	D	8

Grade Point Average (GPA) = (–)		Total ECTS	30

Cumulative Grade Point Average (CGPA) =	**Programme total ECTS**	**240**

4.7 Grading Scheme and Grade Distribution Guidance

Group	Grade	Marks	Definitions
Success Group (50 - 100)	A - Excellent	90 - 100	Outstanding Performance
	B - Very Good	80 - 89	Above average with some errors
	C - Good	70 - 79	Sound work with notable errors
	D - Satisfactory	60 - 69	Fair but with major shortcomings
	E - Sufficient	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	F - Fail	00 - 49	Considerable amount of work required

Marks with 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.

4.8   Overall   Classification of the Qualification

Cumulative Grade Point Average (CGPA) =

Final Grade of Degree relative RANK: 4 of 23

5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1   Access to Further Study

May apply to second cycle programs

5.2   Professional Status Conferred

The degree enables the graduate to exercise the profession

6. ADDITIONAL INFORMATION

6.1   Additional Information

**University of Anbar, College of Computer Science and Information Technology,
Department of Computer Science**

6.2   Further Information Sources

University Website   https://uoanbar.edu.iq/

Registration Office e-mail   xxxxx@ uoanbar.edu.iq

7. CERTIFICATION OF THE SUPPLEMENT

7.1   Date   **01.10. 2027**

7.2   Name   **Full Name**

7.3   Capacity   **University General Registrar**

7.4   Signature
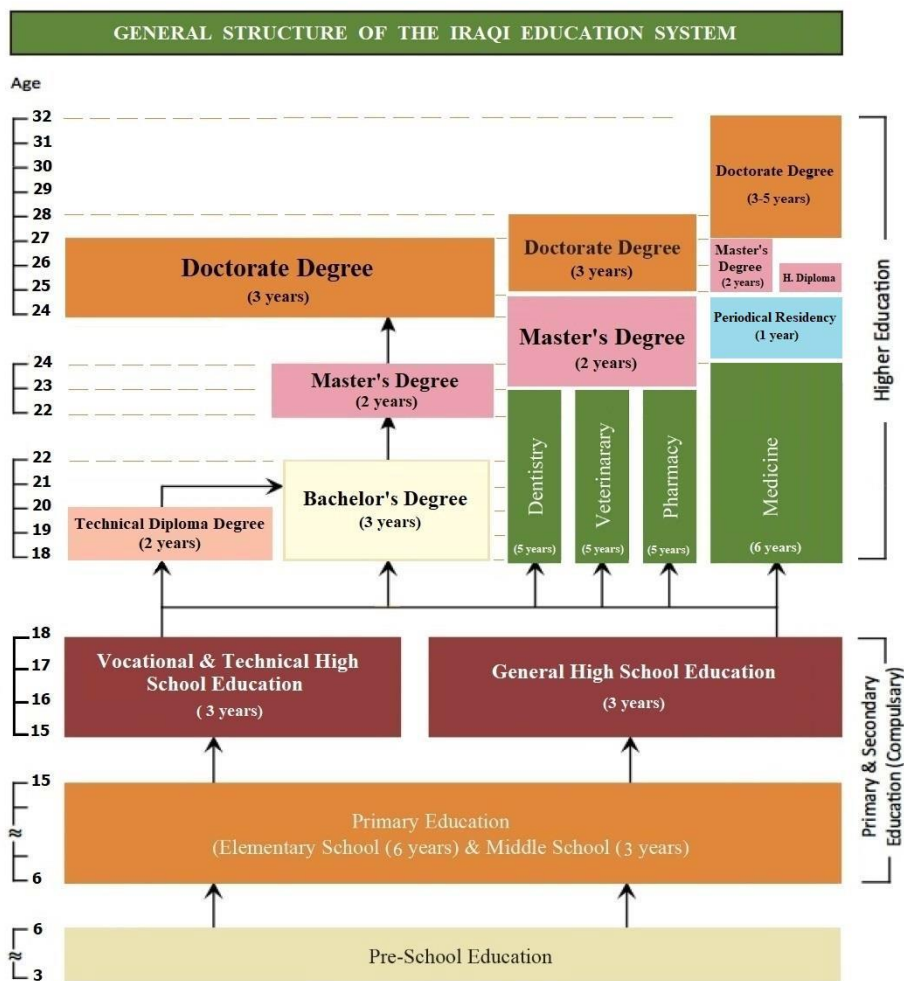
7.5   Official Stamp and Seal

Structure and Degree System

The basic structure of the Iraqi National Education System consists of stages of noncompulsory pre-school education; Compulsory primary (elementary and middle school) and secondary (high school) education; and higher education. Primary education begins at the age of 6 years (72 months), lasts nine years and comprises six years of elementary and three years of middle school education. Secondary education is three years and divided into two categories as "General High School Education" and "Vocational and Technical High School Education". The entry into these categories is through composite scores obtained from centralized exam of secondary schools.

Higher Education System is managed by the Ministry of Higher Education and Scientific Research which is responsible for the planning, coordination, governance and supervision of higher education within the provisions set forth in the Constitution of the Republic of Iraq and Higher Education Law. Both state and private universities are founded by law and subjected to the higher education law and to the regulations enacted in accordance with it.

Higher Education in Iraq comprises all post-secondary higher education programs, consisting of short, first, second and third cycle degrees in terms of the terminology of the Bologna Process. Except for the Architectural Engineering, Pharmacy, Dentistry and Veterinary programs, which are five years (300 ECTS), and Medicine Programme which is six years (360 ECTS), the duration of the fist cycle (Bachelor degree) is a full-time four years (240 ECTS) study. The duration of the short cycle (Technical Diploma) is a full-time two years (120 ECTS) study.

Graduate level of Study consists of second cycle (master) and third cycle (doctorate) degree programs. The second cycle is a master with thesis with duration of two years (120 ECTS). Third cycle (doctorate) degree programs are completed having earned a minimum of 180 ECTS credits., which consists of completion of courses, passing a proficiency examination and doctoral thesis.

GENERAL STRUCTURE OF THE IRAQI EDUCATION SYSTEM

MODULE DESCRIPTOR FORM

Module Information				
Module Title	Structured programming I		**Module Type**	TYPE C
Module Code	ISSP101	**ECTS Credits**		8
Module Level	UGI	**Semester of Delivery**		One
Administering Department	IS	**Faculty**	CSIT	
Module Leader	Mahmoud Hilal	**e-mail**	mah2005hilal@uoanbar.edu.iq	
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**		PhD
Module Tutor		**e-mail**		
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	DD/MM/YY	**Version Number**	1.0	

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	Learn how to use the Advanced Tools helps programmers write fast, portable programs The main principles of programming and the development of programming languages Learn the principles of Structure programming
Module Learning Outcomes	A1- Knowledge and understanding A2. Learn algorithms A3. Learn flowcharts

	A4. Learn structured programming A5. Learn Python programming	
Indicative Contents		

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	5.4
Unstructured workload (h/w)	8
Total workload (h/w)	13.4

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	3	6% (6)	3,7 and 11	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	15% (15)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	50% (50)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?

Required Texts	"Starting Out with Python plus My Programming Lab with Pearson Text --Access Card Package (3rd Edition) Tony Gaddis ISBN-13: 978-0133862256"	Yes/No
Recommended Texts		Yes/No
Websites		

Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
First	3 h.	Programming principles	Overview to Programming Language	Explain Menu, Getting Started with python	
Second	3 h.	Algorithms	Algorithms and Flow Charts	Algorithms and Flow Charts	
Third	3 h.	Introduction to Programming	Storing and Manipulating Values Calling Functions Comments Formatting Values Working with Strings Exercises	Storing and Manipulating Values Calling Functions Comments Formatting Values Working with Strings Exercises	Quiz
Fourth	3 h.	Unary Operators	Unary Minus Increment and /decrement Operators.	Program of Unary Minus Increment and /decrement Operators.	
Fifth	3 h.	Operational Operators	Operational Assignment Operators Relational Operators Logical Operators. Bitwise Operator Logical Operators. Bitwise Operator	Program Operational Assignment Operators Relational Operators Program Logical Operators. Bitwise Operator	
Sixth	3 h.	Selection Statements	Boolean Logic If Statements If-Else Statements	Programs in Lectures	Quiz
Seventh	3 h.	Selection Statements	If-Elif Statements If-Elif-Else Statements Nested If Statements	Programs in Lectures	

Ninth	3 h.	To evaluate the students	Monthly exam		By exam
Ninth	3 h.	Repetition	While Loops		By exam
Tenth	3 h.	Repetition	For Loops	Programs in Lectures	
Eleventh	3 h.	Repetition	Nested Loops Exercises	Programs in Lectures	
Twelfth	3 h.	Functions	Functions with Parameters Variables in Functions	Programs in Lectures	
Thirteenth	3 h.	Functions	Return Values	Programs in Lectures	
Fourteenth	3 h.	Functions	Importing Functions into Other Programs Exercises	Programs in Lectures	
Fifteenth	3 h.	To evaluate the students	Monthly exam		By exam

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

MODULE DESCRIPTOR FORM

Module Information

Module Title	**Fundamental of Information Technology**		Module Type	TYPE C
Module Code	ISFI102	**ECTS Credits**		6
Module Level	UGI	**Semester of Delivery**		One
Administering Department	IS	**Faculty**	CSIT	
Module Leader	Mohanad Abdulsalam Younis gedan	**e-mail**	mohanad.abdul@uoanbar.edu.iq	
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**		Ph. D
Module Tutor		**e-mail**		
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	DD/MM/YY	**Version Number**	2.0	

Relation With Other Modules

Pre-requisites	/
Co-requisites	/

Module Aims, Learning Outcomes and Indicative Contents

Module Aims	- Provide a basic knowledge of computer hardware and software - Introduce the business areas to which computers may be applied. - Provide an introduction to business organization and information systems. - Develop the skills in network & communication, which play an important part in business computing and information processing.
Module Learning	A-Knowledge and Understanding

Outcomes	A1. The student should understand the architecture of any IT systems. A2. The student should understand the parts of hardware. A3. The student should understand the system software. A4. The student should understand the architecture of networks, protocols and communications devices.
Indicative Contents	

Learning and Teaching Strategies	
Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	3.4
Unstructured workload (h/w)	5.6
Total workload (h/w)	10

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	3	6% (6)	3,7 and 11	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	15% (15)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	50% (50)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Introduction of Computers and Programming
Week 2	Brief history of computer
Week 3	Generation of Computers & Computer hierarchy
Week 4	Basic Computer Components
Week 5	Computer function (fetch cycle, interrupt cycle, I/O function
Week 6	Semiconductor main memory (RAM, ROM, CACHE)
Week 7	**Mid-Term Exam**
Week 8	Computer Software (application software)
Week 9	External & Internal memory
Week 10	Telecommunications system & Network
Week 11	Topology of a network
Week 12	Layering model
Week 13	Protocols
Week 14	addressing communications

Week 15	Preparatory Week
Week 16	Final Exam

APPENDIX:

UNIVERSITY of Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information				
Module Title	**Logic Design I**		**Module Type**	Type c
Module Code	ISLD103	**ECTS Credits**		6
Module Level	UGI	**Semester of Delivery**		One
Administering Department	IS	**Faculty**		CSIT
Module Leader	Muntaser Abdulwahed Salman Abdulaziz	**e-mail**		Co.montasser.salman@uoanbar.edu.iq
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**		PhD.
Module Tutor		**e-mail**		
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	DD/MM/YY	**Version Number**	2.0	

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	-The student should understand number systems and codes and the conversion between them. -The student should understand the Boolean expression and how to apply it. -The student should recognize among different logic gates and how to use them. -The student should understand how to design a logic circuit. -The student should understand using K-map for simplification.
Module Learning	A-Knowledge and Understanding

Outcomes	A1. The student should understand number systems and codes and the conversion between them. A2. The student should understand the Boolean expression and how to apply it. A3. The student should recognize among different logic gates and how to use them. A4. The student should understand how to design a logic circuit. A5. The student should understand using K-map for simplification
Indicative Contents	

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	6.4
Unstructured workload (h/w)	3.6
Total workload (h/w)	10

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	٣	6% (6)	3,7 and 11	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	1٥% (1٥)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	50% (50)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to number system
Week 2	Conversion between systems
Week 3	Codes and conversion between them
Week 4	Boolean expression
Week 5	Logic gates
Week 6	Logic gates design
Week 7	**Mid-Term Exam**
Week 8	NAND gates
Week 9	NOR gates
Week 10	Sum of product form
Week 11	Product Of sum form
Week 12	Product Of sum form
Week 13	K-map
Week 14	K-map

Week 15	Preparatory Week
Week 16	Final Exam

APPENDIX:

UNIVERSITY of Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	5
	B - Very Good	Next 25%	Above average with some errors	4
	C - Good	Next 30%	Sound work with notable errors	3
	D - Satisfactory	Next 25%	Fair but with major shortcomings	2
	E - Sufficient	Next 10%	Work meets minimum criteria	1
Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information				
Module Title	**Mathematic I**		**Module Type**	TYPE B
Module Code	**CCIT060**	**ECTS Credits**		6
Module Level	**UGI**	**Semester of Delivery**		One
Administering Department	**IS**	**Faculty**	CSIT	
Module Leader	**Muhammad Rabie**	**e-mail**	mohammed.rabeea@uoanbar.edu.iq	
Module Leader's Acad. Title	**Lecturer**	**Module Leader's Qualification**	PhD.	
Module Tutor		**e-mail**		
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	DD/MM/YY	**Version Number**	2.0	

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	A - Understand the concept of mathematics, its methods and applications. B - Explain the concept of derivatives and integration and their applications. C - Understand the relationship between extracts and integration and the real problems and how to deal with them
Module Learning Outcomes	A-Knowledge and Understanding A 1. Acquiring the ability and skill to distinguish the bases of derivatives methods and dealing with them A 2. Acquire the capabilities and skills of applications of derivatives

	A3. Dealing with different methods of finite and indefinite derivatives B. Subject-specific skills B1. Summer Training B2. Fourth year projects B3. Scientific projects
Indicative Contents	

Learning and Teaching Strategies

	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.
Strategies	

Module Delivery

Structured workload (h/w)	3.3
Unstructured workload (h/w)	6.7
Total workload (h/w)	10

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	2	6% (6)	5 and 10	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	5% (5)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	60% (60)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	The Definition of the Derivative Interpretation of the Derivative
Week 2	Properties of Derivative , Some laws of derivatives
Week 3	Properties of Derivative , Some laws of derivatives
Week 4	**Derivatives of the six trig functions**
Week 5	**Exponential Functions, Logarithm Functions**
Week 6	**Inverse Sine, Inverse cosine, Inverse tangent, Alternate Notation**
Week 7	**Mid-Term Exam**
Week 8	**Inverse Sine, Inverse cosine, Inverse tangent, Alternate Notation**
Week 9	These are the six hyperbolic trig Functions .and They are defined as
Week 10	There are two forms of the chain rule
Week 11	Defined , formula, and used the chain rule
Week 12	first derivative, second derivative, third derivative.
Week 13	the properties of logarithms

Week 14	Introduction, Critical Points and Minimum and Maximum Values
Week 15	**Preparatory Week**
Week 16	**Final Exam**

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information				
Module Title	**English (1)**		**Module Type**	TYPE S
Module Code		**UOA003**	**ECTS Credits**	2
Module Level		**UGI**	**Semester of Delivery**	One
Administering Department		**IS**	**Faculty**	CSIT
Module Leader	**Akeel Abdulraheem Thulnoon Zoead**		**e-mail**	**akeelalhadithy@uoanbar.edu.iq**
Module Leader's Acad. Title	**Assistant Professor**		**Module Leader's Qualification**	PhD.
Module Tutor			**e-mail**	
Peer Reviewer Name	/		**e-mail**	/
Review Committee Approval	DD/MM/YY		**Version Number**	2.0

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	Enhancing English speaking, reading and writing Memorize a big number of vocabularies Helping students to deal with the English language in easier ways
Module Learning Outcomes	A1. Reading A2. writing A3. Speaking. A4. Listening B. Subject-specific skills

Indicative Contents	B1. Learn scanning and skimming skills in reading B2. Right pronunciation B3. Vocabularies

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	2.34
Unstructured workload (h/w)	4.34
Total workload (h/w)	6.68

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	2	6% (6)	5 and 10	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	5% (5)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	60% (60)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the

		Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Unit 1: Hello
Week 2	Unit 2:Your world
Week 3	Unit 3:All about you
Week 4	Unit 4: Family and friends
Week 5	Unit 5: The way I live
Week 6	Unit 6: Every Day
Week 7	**Mid-Term Exam**
Week 8	Unit 7: My favourites
Week 9	Unit 8: Where I live
Week 10	Unit 9:Times past
Week 11	Unit 10:we had a great time!
Week 12	English for Computer Science
Week 13	Listening
Week 14	Revision of most important topics in the subject
Week 15	**Preparatory Week**

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX** – Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية				
Module Title	**الحريات وحقوق الانسان**		**Module Delivery**	
Module Type	S		☒ Theory ☐ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	**UOA005**			
ECTS Credits	**2**			
SWL (hr/sem)	**50**			
Module Level	1	**Semester of Delivery**		1
Administering Department	IS	**College**	Type College Code	
Module Leader	Name	**e-mail**	E-mail	
Module Leader's Acad. Title		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)	**e-mail**	E-mail	
Peer Reviewer Name	Name	**e-mail**	E-mail	
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

<table>
<tr><td colspan="2" align="center">**Module Aims, Learning Outcomes and Indicative Contents**
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية</td></tr>
<tr>
<td>**Module Objectives**
أهداف المادة الدراسية</td>
<td align="right">أ . تعليم الطلبة على أساسيات حقوق الإنسان وقوانينها.
ب. التعرف على الحقوق وأهم الإشكاليات والتحديات التي تواجهها
ج- تحديد وفهم المفاهيم المتعلقة بالحريات، بما في ذلك الحقوق الفردية والحريات الشخصية.
د. تنمية القدرة على التفكير النقدي حول القضايا المتعلقة بالحريات والحقوق الفردية.</td>
</tr>
<tr>
<td>**Module Learning Outcomes**
مخرجات التعلم للمادة الدراسية</td>
<td align="right">١- أن يعرف الطالب مفهوم الحقوق وقوانينها وتطبيقاتها .
٢- أن يعرف الطالب كيفية المشاركة في نشر الحقوق وتطبيقها بالعمل الواقعي الحقيقي.
٣- القدرة على استخدام الحقوق وسيلة من أجل التعايش السلمي بين مكونات المجتمع وجميع المخلوقات .
٤- القدرة على مشاركة الآخرين في نشر هذه الحقوق .
٥- القدرة على تحليل وتعريف مفهوم الحرية والتمييز بين أنواع مختلفة من الحريات.
٦- التفاعل مع قضايا الحريات على الصعيدين الوطني والدولي والتأثير في تشكيل الرأي العام.</td>
</tr>
<tr>
<td>**Indicative Contents**
المحتويات الإرشادية</td>
<td align="right">الحقوق والحريات الأساسية وغير الأساسية
الحقوق والحريات المدنية
الحقوق السياسية
حقوق الانسان والقانون الدولي الإنساني</td>
</tr>
</table>

<table>
<tr><td colspan="2" align="center">**Learning and Teaching Strategies**
استراتيجيات التعلم والتعليم</td></tr>
<tr>
<td>**Strategies**</td>
<td align="right">١- المشاركة بالتحضير في قاعة الدرس
٢- طريقة الأسئلة والأجوبة في قاعة الدرس
٣- الواجبات
٤- التقارير</td>
</tr>
</table>

<table>
<tr><td colspan="4" align="center">**Student Workload (SWL)**
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا</td></tr>
<tr>
<td>**Structured SWL (h/sem)**
الحمل الدراسي المنتظم للطالب خلال الفصل</td>
<td align="center">33</td>
<td>**Structured SWL (h/w)**
الحمل الدراسي المنتظم للطالب أسبوعيا</td>
<td align="center">2</td>
</tr>
<tr>
<td>**Unstructured SWL (h/sem)**
الحمل الدراسي غير المنتظم للطالب خلال الفصل</td>
<td align="center">17</td>
<td>**Unstructured SWL (h/w)**
الحمل الدراسي غير المنتظم للطالب أسبوعيا</td>
<td align="center">1</td>
</tr>
<tr>
<td>**Total SWL (h/sem)**
الحمل الدراسي الكلي للطالب خلال الفصل</td>
<td colspan="3" align="center">**50**</td>
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</table>

<table>
<tr><th colspan="6">Module Evaluation
تقييم المادة الدراسية</th></tr>
<tr><th></th><th></th><th>Time/Number</th><th>Weight (Marks)</th><th>Week Due</th><th>Relevant Learning Outcome</th></tr>
<tr><td rowspan="4">Formative assessment</td><td>Quizzes</td><td>2</td><td>10% (10)</td><td>5 and 10</td><td>LO #1, #2 and #10, #11</td></tr>
<tr><td>Assignments</td><td>2</td><td>10% (10)</td><td>2 and 12</td><td>LO #3, #4 and #6, #7</td></tr>
<tr><td>Projects / Lab.</td><td>1</td><td></td><td>Continuous</td><td>All</td></tr>
<tr><td>Report</td><td>1</td><td>10% (10)</td><td>13</td><td>LO #5, #8 and #10</td></tr>
<tr><td rowspan="2">Summative assessment</td><td>Midterm Exam</td><td>2hr</td><td>10% (10)</td><td>7</td><td>LO #1 - #7</td></tr>
<tr><td>Final Exam</td><td>3hr</td><td>60% (60)</td><td>16</td><td>All</td></tr>
<tr><td colspan="2">Total assessment</td><td></td><td>100% (100 Marks)</td><td></td><td></td></tr>
</table>

<table>
<tr><th colspan="2">Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري</th></tr>
<tr><td></td><td>Material Covered</td></tr>
<tr><td>Week 1</td><td style="text-align:right">تعريف الحقوق</td></tr>
<tr><td>Week 2</td><td style="text-align:right">أنواع حقوق الانسان</td></tr>
<tr><td>Week 3</td><td style="text-align:right">الحقوق الأساسية وغير الأساسية</td></tr>
<tr><td>Week 4</td><td style="text-align:right">- الحقوق المدنية , الحقوق السياسية</td></tr>
<tr><td>Week 5</td><td style="text-align:right">الحقوق الاقتصادية والاجتماعية والثقافية
الحقوق الفردية والحقوق الجماعية</td></tr>
<tr><td>Week 6</td><td style="text-align:right">طائفة الحقوق الجديدة
حقوق الانسان والقانون الدولي الإنساني
العلاقة بين حقوق الانسان والقانون الدولي الانساني</td></tr>
<tr><td>Week 7</td><td style="text-align:right">امتحان</td></tr>
<tr><td>Week 8</td><td style="text-align:right">ماهو مفهوم الحريات :مصطلح الحرية والحريات العامة</td></tr>
<tr><td>Week 9</td><td style="text-align:right">التطور في مفهوم الحريات العامة</td></tr>
<tr><td>Week 10</td><td style="text-align:right">أشكال الحريات العامة وأنواعه</td></tr>
<tr><td>Week 11</td><td style="text-align:right">النظام القانوني للحريات العامة</td></tr>
<tr><td>Week 12</td><td style="text-align:right">تنظيم الحريات العامة من قبل السلطات العامة</td></tr>
</table>

	Week 13	ضمانات الحريات العامة
	Week 14	الحريات في الفكر السياسي الحديث
	Week 15	الامتحان النهائي

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Diamond L. & M. F. Plattner, eds., (2009), Democracy. A Reader, Baltimore, Johns Hopkins University Press.	yes
Recommended Texts	مفهوم الحريات العامة وحقوق الانسان ، إطارها التاريخي والفكري والفلسفي، وضماناتها الأساسية- ٢٠١٠	
Websites	**http://ghrorg-learning.blogspot.com**	

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.

MODULE DESCRIPTOR FORM

Module Information				
Module Title	Structured programming II		**Module Type**	TYPE C
Module Code	ISSP201		**ECTS Credits**	8
Module Level	UGI		**Semester of Delivery**	Two
Administering Department	IS	**Faculty**	CSIT	
Module Leader	Mahmoud Hilal Farhan	**e-mail**	Mah2005hilal@uoanbar.edu.iq	
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**	PhD	
Module Tutor	Mahmoud Hilal Farhan	**e-mail**	Mah2005hilal@uoanbar.edu.iq	
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	DD/MM/YY	**Version Number**	2.0	

Relation With Other Modules	
Pre-requisites	ISSP101
Co-requisites	

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	Learn how to use the Advanced Tools helps programmers write fast, portable programs The main principles of collections programming and the development of programming languages Learn the advanced principles of Structure programming
Module Learning	A- Knowledge and Understanding collection such as list and Dictionaries

Outcomes	A2.Learn about Files and Exceptions A3.Learn about advanced topics in python
Indicative Contents	

Learning and Teaching Strategies	
Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	5.34
Unstructured workload (h/w)	8
Total workload (h/w)	13.34

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	3	6% (6)	3,7 and 11	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	15% (15)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	50% (50)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?

Required Texts	Deitel, Paul, Harvey Deitel, and Paul J. Deitel. Python for Programmers. Addison-Wesley Professional, 2019.	
Recommended Texts	Tony Gaddis, Starting Out with Python, 5th editio, Haywood Community College, Pearson 2021	
Websites	Python in w3schools.com	

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	**Functions:** Functions with Parameters and Variables in Functions
Week 2	**Functions:** Return Values
Week 3	**Functions:** Importing Functions into Other Programs
Week 4	**Lists:** Adding Elements to a List, Removing Elements from a List, and Rearranging the Elements in a List
Week 5	**List:** Searching a List and Lists as Return Values and Arguments
Week 6	**Dictionaries:** Accessing, Modifying and Adding Values, Removing a Key-Value Pair and Additional Dictionary Operations
Week 7	**Mid-Term Exam**
Week 8	**Dictionaries:** Loops and Dictionaries and Dictionaries as Arguments and Return Values
Week 9	**Dictionaries:** Dictionaries: Accessing, Modifying and Adding Values, Removing a Key-Value Pair and Additional Dictionary Operations
Week 10	**Dictionaries:** Loops and Dictionaries and Dictionaries as Arguments and Return Values
Week 11	**Files :** Opening a File, and Reading Input from a File
Week 12	**Files:** End of Line Characters and Writing Output to a File

Week 13	**Files :** Command Line Arguments **Exceptions**
Week 14	**Recursion :** Summing Integers , Fibonacci Numbers and Counting Characters
Week 15	**Preparatory Week**
Week 16	**Final Exam**

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX** – Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

Ministry of Higher Education and
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University of Anbar.
Department of Information
System.

MODULE DESCRIPTOR FORM

Module Information				
Module Title	Logic Design II		**Module Type**	TYPE B
Module Code	CSIT111	**ECTS Credits**		6
Module Level	UGI	**Semester of Delivery**		Two
Administering Department	IS	**Faculty**	CSIT	
Module Leader	Muntaser AbdulWahed Salman Abdulaziz	**e-mail**	co.montasser.salman@uoanbar.edu.iq	
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**		PhD.
Module Tutor		**e-mail**		
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	DD/MM/YY	**Version Number**	2.0	

Relation With Other Modules	
Pre-requisites	CSIT109
Co-requisites	
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	● The student should understand encoder, decoder and multiplexers ● The student should understand synchronous logic circuit ● The student should understand flip-flops and how to use them ● The student should understand registers and their types ● The student should understand counters and their types ● The student should understand ROM and PLA implementation
Module Learning Outcomes	A1. The student should understand encoder, decoder and multiplexers A2. The student should understand flip-flops and how to use them.

	A3. The student should understand registers and their types. A4. The student should understand counters and their types. A5. The student should understand ROM and PLA implementation.
Indicative Contents	

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	4.4
Unstructured workload (h/w)	5.6
Total workload (h/w)	10

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	3	6% (6)	3,7 and 11	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	15% (15)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	50% (50)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the

		Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Synchronous logic gates
Week 2	Adder and subtractor circuits
Week 3	Comparator circuits
Week 4	Encoders and multiplexers
Week 5	Multiplexers
Week 6	First month exam
Week 7	**Mid-Term Exam**
Week 8	Flip-flops
Week 9	SR flip flop and j k flip flop
Week 10	T flip flop and D flip flop
Week 11	Second month exam
Week 12	Registers design
Week 13	Counters design
Week 14	ROM PLA State plan
Week 15	**Preparatory Week**

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	ECTS Grade	% of Students/Marks	Definition	GPA
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	5
	B - Very Good	Next 25%	Above average with some errors	4
	C - Good	Next 30%	Sound work with notable errors	3
	D - Satisfactory	Next 25%	Fair but with major shortcomings	2
	E - Sufficient	Next 10%	Work meets minimum criteria	1
Fail Group (0 – 49)	**FX** – Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information			
Module Title	Arabic Language	**Module Type**	TYPE B
Module Code	UOA137	**ECTS Credits**	2
Module Level	UGI	**Semester of Delivery**	Two
Administering Department	IS	**Faculty**	CSIT
Module Leader	Saad Ibrahim Ahmed Hussein	**e-mail**	Saad.ibrahim@uonbar.edu.iq
Module Leader's Acad. Title	Assistant Professor	**Module Leader's Qualification**	Ph. D
Module Tutor		**e-mail**	
Peer Reviewer Name	/	**e-mail**	/
Review Committee Approval	DD/MM/YY	**Version Number**	2.0

Relation With Other Modules	
Pre-requisites	/
Co-requisites	
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	تعليم الطلبة على أساسيات اللغة العربية وقواعدها تعليم الطلبة على كيفية الأعراب
Module Learning Outcomes	**أن يتعرف الطالب على قواعد اللغة العربية** أن يعرف الطالب كيفية بناء الجمل واستخراجها للعنوان المطلوب
Indicative Contents	

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	2.3
Unstructured workload (h/w)	4.3
Total workload (h/w)	6.6

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	2	6% (6)	5 and 10	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.	1	5% (5)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	60% (60)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	العدد تذكيره وتأنيثه
Week 2	الأعداد المفردة والمركبة
Week 3	ألفاظ العقود و الأعداد (مئة ، ألف ، مليون)
Week 4	تعريف العدد وتنكيره
Week 5	ما يصاغ من العدد على وزن فاعل
Week 6	كتابة الهمزة المتوسطة والمتطرفة
Week 7	Mid-Term Exam
Week 8	كتابة الألف اللينة
Week 9	كتابة التاء المربوطة والمبسوطة
Week 10	كتابة الضاد والظاء
Week 11	اللامات وأنواعها
Week 12	الهاءات وأنواعها
Week 13	النونات وأنواعها
Week 14	استعمالات (ما ، من) والفرق بين (أما ، إما)
Week 15	**Preparatory Week**
Week 16	**Final Exam**

APPENDIX:

UNIVERSITYof Anbar
GRADING SCHEME

Group	ECTS Grade	% of Students/Marks	Definition	GPA
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	

Note:

NB 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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information				
Module Title	Communication Skills		**Module Type**	**Type c**
Module Code	ISMT203	**ECTS Credits**	2	
Module Level	UGI	**Semester of Delivery**	**Two**	
Administering Department	IS	**Faculty**	CSIT	
Module Leader	Mohammed .Rabeea	**e-mail**	mohammed.rabeea@uoanbar.edu.iq	
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**	PhD	
Module Tutor		**e-mail**		
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	DD/MM/YY	**Version Number**	1.0	

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	The aims of a module focused on communication skills typically revolve around equipping individuals with the tools and techniques necessary to effectively convey information, ideas, and emotions in various contexts.
Module Learning Outcomes	• A1- Define and explain the key concepts and theories of communication.

	• Identify and analyze the different types of communication. • Apply communication skills in a variety of contexts. • Evaluate the effectiveness of their own communication skills. • Develop a plan to improve their communication skills.
Indicative Contents	

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	5.4
Unstructured workload (h/w)	8
Total workload (h/w)	13.4

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes		% ()	3,7 and 11	
Assignments	4	5% (20)	2 and 12	
Projects / Lab.	1/0	5% (5)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	10% (10)	7	
Final Exam	1Z	50% (50)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Communication: Building Relationships by Judy C. Pearson, 10th Edition, Allyn & Bacon, 2019	Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Definition of communication and its significance
Week 2	Models of communication The role of perception and context in communication
Week 3	Principles of effective writing Grammar, punctuation, and sentence structure
Week 4	Crafting clear and concise messages Writing for different audiences and purposes
Week 5	Public speaking fundamentals Speech organization and delivery techniques
Week 6	Overcoming stage fright and anxiety Practicing persuasive communication
Week 7	**Mid-Term Exam**
Week 8	Active listening skills Empathetic communication and rapport-building
Week 9	Conflict resolution strategies Cultural sensitivity and communication
Week 10	Understanding body language and facial expressions Gestures, posture, and eye contact
Week 11	Interpreting non-verbal cues in communication

	Using non-verbal communication to enhance message clarity
Week 12	Ethical communication Ethical principles in communication
Week 13	Communication in academic settings (presentations, group discussions)
Week 14	Professional communication (emails, meetings, networking)
Week 15	**Preparatory Week**
Week 16	**Final Exam**

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				
NB 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.				

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

<table>
<tr><td colspan="4" align="center">Module Information
معلومات المادة الدراسية</td></tr>
<tr><td>Module Title</td><td colspan="2" align="center"><b style="color:red">Communication skills</td><td>Module Delivery</td></tr>
<tr><td>Module Type</td><td colspan="2" align="center">C</td><td rowspan="4">☒ Theory
☒ Lecture
☒ Lab
☐ Tutorial
☐ Practical
☐ Seminar</td></tr>
<tr><td>Module Code</td><td colspan="2" align="center"><b style="color:red">CSDC123</td></tr>
<tr><td>ECTS Credits</td><td colspan="2" align="center">2</td></tr>
<tr><td>SWL (hr/sem)</td><td colspan="2" align="center"><b style="color:red">50</td></tr>
<tr><td>Module Level</td><td>UGI</td><td>Semester of Delivery</td><td>Two</td></tr>
<tr><td>Administering Department</td><td>CSIT</td><td>College</td><td>Type College Code</td></tr>
<tr><td>Module Leader</td><td>Name</td><td>e-mail</td><td></td></tr>
<tr><td>Module Leader's Acad. Title</td><td>Professor</td><td>Module Leader's Qualification</td><td>Ph.D.</td></tr>
<tr><td>Module Tutor</td><td>Name (if available)</td><td>e-mail</td><td>E-mail</td></tr>
<tr><td>Peer Reviewer Name</td><td>Name</td><td>e-mail</td><td>E-mail</td></tr>
<tr><td>Scientific Committee Approval Date</td><td>01/06/2023</td><td>Version Number</td><td>1.0</td></tr>
</table>

<table>
<tr><td colspan="4" align="center">Relation with other Modules
العلاقة مع المواد الدراسية الأخرى</td></tr>
<tr><td>Prerequisite module</td><td>None</td><td>Semester</td><td></td></tr>
<tr><td>Co-requisites module</td><td>None</td><td>Semester</td><td></td></tr>
</table>

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	- Develop Effective Communication Strategies: Learn how to adapt communication styles for different audiences, situations, and purposes. - Enhance Written Communication: Improve the ability to express thoughts and ideas clearly and concisely in written form, including emails, reports, and other written documents. - Improve Presentation Skills: Learn how to prepare and deliver effective presentations, including structuring content, using visual aids, and engaging an audience.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	On successful completion of the module, students will be able to: - Articulate their thoughts and ideas clearly and concisely, with improved vocabulary and grammar. - Produce well-structured, error-free written documents, such as emails, reports, and other written materials. - Adapt their communication style to suit different audiences, situations, and purposes. - Prepare and deliver engaging and informative presentations, utilizing appropriate structure, visual aids, and audience engagement techniques.
Indicative Contents المحتويات الإرشادية	Introduction to communication skills Study skills Library skills Listening skills Presentation skills

Learning and Teaching Strategies	
استراتيجيات التعلم والتعليم	
Strategies	- The student should use utilities in the lab to apply scientific experiment - The ability to execute the applications software.

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**50**		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	INTRODUCTION TO COMMUNICATION SKILLS
Week 2	Verbal Communication
Week 3	Communication cycle
Week 4	Study skills
Week 5	Presentation of Work
Week 6	Planning work
Week 7	Mid-term exam
Week 8	Library skills
Week 9	Academic library
Week 10	Research libraries
Week 11	LISTENING SKILLS
Week 12	Why You Need Good Listening Skills
Week 13	Barriers to effective listening
Week 14	READING SKILLS
Week 15	Types and methods of reading

Delivery Plan (Weekly Lab. Syllabus)
المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Communication skills vol.I Wambui et al.	No
Recommended Texts		No
Websites		

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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information					
Module Title	**Office Application**			**Module Type**	TYPE C
Module Code		ISOA204	**ECTS Credits**		6
Module Level		UGI	**Semester of Delivery**		Two
Administering Department		IS	**Faculty**	CSIT	
Module Leader	**Khalid Shaker Jasim**		**e-mail**	**khalidalhity@uoanbar.edu.iq**	
Module Leader's Acad. Title		Lecturer	**Module Leader's Qualification**		PhD
Module Tutor			**e-mail**		
Peer Reviewer Name		/	**e-mail**	/	
Review Committee Approval		DD/MM/YY	**Version Number**	1.0	

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	This module aims to equip students with the knowledge and skills to effectively utilize a suite of office applications for various business and productivity needs.
Module Learning Outcomes	• Demonstrate a strong understanding of the core functionalities of common office applications (e.g., word processing, spreadsheet, presentation software). • Apply these functionalities to create professional documents, presentations, and spreadsheets for diverse purposes. • Employ advanced features of the software to enhance the efficiency and

	• Collaborate effectively on documents and projects within a team setting using the application's collaborative tools. • Analyze and interpret data effectively using spreadsheet functions and data visualization tools.	
Indicative Contents		

Learning and Teaching Strategies	
Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery	
Structured workload (h/w)	5.4
Unstructured workload (h/w)	8
Total workload (h/w)	13.4

Module Evaluation				
	Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Quizzes	3	6% (6)	3,7 and 11	LO #1, #2, #4, #5 and #10, #11
Assignments	2	6% (6)	2 and 12	LO #3, #4 and #6, #7
Projects / Lab.	1	15% (15)	Continuous	ALL
Report	1	5% (5)	13	LO #9, #11
Midterm Exam	2 hr	18% (18)	7	LO #1 - #7
Final Exam	3 hr	50% (50)	16	ALL
Total		100% (100 Marks)		

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites	Both Microsoft (https://support.microsoft.com/en-us/training) and (https://support.google.com/a/users/answer/9282959) offer extensive tutorials, video guides, and documentation for their respective office suites (Microsoft Office & Google Workspace).	

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Introduction to Office Applications Word Processing Basic
Week 2	Advanced Word Processing Spreadsheets Basics
Week 3	Presentations Basics
Week 4	Basic Computer Components
Week 5	Advanced Presentations
Week 6	Advanced Databases
Week 7	**Mid-Term Exam**
Week 8	Advanced Email
Week 9	Office Applications in the Workplace
Week 10	Accessibility and Assistive Technologies
Week 11	Troubleshooting and Problem Solving
Week 12	Ethics and Legal Issues

Week 13	Resume Writing and Interviewing Skills
Week 14	Final Project Presentations
Week 15	**Preparatory Week**

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.

	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information				
Module Title	Discrete Mathematics		**Module Type**	TYPE B
Module Code	CCIT061	**ECTS Credits**		6
Module Level		**Semester of Delivery**		Two
Administering Department	IS	**Faculty**		CSIT
Module Leader	Akeel A Thulnoon	**e-mail**		akeelalhadithy@uoanbar.edu.iq
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**		PhD.
Module Tutor		**e-mail**		
Peer Reviewer Name	/	**e-mail**	/	
Review Committee Approval	25/02/2024	**Version Number**		2.0

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	The aim of studying of discrete mathematics equips you with the tools to analyze and solve problems involving distinct, countable objects. It builds foundational skills in logical reasoning, counting techniques, and analyzing relationships between structures. Mastering these concepts empowers you to tackle problems in various fields, including computer science, cryptography, information theory, and areas of mathematics itself. By understanding the fundamental properties of discrete structures, you gain the ability to model and analyze real-world scenarios with precision and efficiency.

Module Learning Outcomes	A1. Enhanced problem-solving skills A2. Strong foundation in logical thinking A3. Proficiency in counting techniques. A4. Understanding of discrete structures B. Ability to model real-world scenarios
Indicative Contents	
	Learning and Teaching Strategies
Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	2.34
Unstructured workload (h/w)	4.34
Total workload (h/w)	6.68

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	2	6% (6)	5 and 10	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.		5% (5)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	60% (60)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction, Sets
Week 2	Relations, Practice
Week 3	Mathematical Logic (Propositional logic, Propositional calculus)
Week 4	Mathematical Logic (Predicate logic, Practice)
Week 5	Group Theory (Basic Concept)
Week 6	Group operations
Week 7	**Mid-Term Exam**
Week 8	Counting Theory (counting principles)
Week 9	Pigeonhole principle
Week 10	Probability (Basic concepts)
Week 11	Counting techniques, Bayes' theorem
Week 12	Mathematical Induction and Recurrence Relations
Week 13	Graph Theory and Trees
Week 14	Boolean Algebra

Week 15	Preparatory Week
Week 16	Final Exam

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A -** Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX –** Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.