



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	ICE111	Physics	الفيزياء	English	3	1	3				3	108	67	175	7.00	B		
		2	ICE112	Mathematics I	رياضيات I	English	4	1					3	78	72	150	6.00	B		
		3	ICE113	Computer Programming	برمجة الحاسوب	English	3	1	3				3	108	67	175	7.00	C		
		4	ICE114	Human Rights & General Freedom	حقوق الانسان والحرية العامة	Arabic	2						3	33	17	50	2.00	S		
		5	ICE115	Electrical Circuits Theory	نظرية الدوائر الكهربائية	English	2		2				3	63	37	100	4.00	S		
		6	ICE116	Presentation Skills	مهارات العرض	English	1						3	18	7	25	1.00	S		
		7	ICE117	Computer Principles	اساسيات الحاسوب	English	3						3	48	27	75	3.00	S		
							Total	18	3	8	0	0	0	21	456	294	750	30.00		
UGI	Two	1	ICE121	Mathematics II	رياضيات II	English	4	1					3	78	72	150	6.00	B	ICE112	
		2	ICE122	Structured Programming	البرمجة الهيكلية	English	3	1	3				3	108	92	200	8.00	C	ICE113	
		3	ICE123	Digital Electronics	الإلكترونيات الرقمية	English	2	1	2				3	78	47	125	5.00	S		
		4	ICE124	Engineering Drawing	الرسم الهندسي	English	1		2				3	48	27	75	3.00	B		
		5	ICE125	Data Analysis & Visualization	تعلم البيانات وتحليلها	English	1		2				3	48	52	100	4.00	S		
		6	ICE126	Arabic	لغة عربية	Arabic	2						3	33	17	50	2.00	S		
		7	ICE127	Academic English I	اللغة الانكليزية I	English	2						3	33	17	50	2.00	S		
							Total	15	3	9	0	0	0	21	426	324	750	30.00		
UGII	Three	1	ICE211	Mathematics III	رياضيات III	English	3	1					3	63	62	125	5.00	B		
		2	ICE212	Web Design & Development	تصميم المواقع وتطويرها	English	2		2			3	3	63	62	125	5.00	S		
		3	ICE213	Electronic Systems	الإلكترونيات	English	2	1	2				3	78	72	150	6.00	C		
		4	ICE214	Object Oriented Programming	البرمجة الشيئية	English	3	1	3				3	108	42	150	6.00	C	ICE122	
		5	ICE215	Digital System Design	تصميم الازطمة الرقمية	English	2		2		1		3	78	22	100	4.00	C	ICE123	
		6	ICE216	Academic English II	اللغة الانكليزية II	English	2						3	33	17	50	2.00	S		
		7	ICE127	Crimes of Baath's Regime in Iraq	جرائم نظام البعث في العراق	Arabic	2						3	33	17	50	2.00	S		
							Total	16	3	9	0	1	3	21	456	294	750	30.00		
UGII	Four	1	ICE221	Mathematics IV	رياضيات IV	English	3	2					3	78	47	125	5.00	B		
		2	ICE222	Analogue Communication	الاتصالات التناظرية	English	2		2		1		3	78	47	125	5.00	C	ICE211	
		3	ICE223	Electromagnetic Fields & propagation	المجالات الكهرومغناطيسية والانتشار	English	2	1					3	48	52	100	4.00	S		
		4	ICE224	Data-Base Design	تصميم قاعدة البيانات	English	2		3				3	93	57	150	6.00	C	ICE212	
		5	ICE225	Programming Paradigms	النماذج البرمجية	English	3	1	3				3	108	42	150	6.00	C	ICE214	
		6	ICE226	Microprocessor	المعالج الدقيق	English	2		2				3	63	37	100	4.00	C	ICE215	
							Total	14	5	10	0	1	0	18	468	282	750	30.00		
UGIII	Five	1	ICE311	Mathematics V	رياضيات V	English	3	2					3	78	72	150	6.00	B		
		2	ICE312	Antenna Theory	نظرية الهوائيات	English	2	1					3	48	52	100	4.00	C	ICE223	
		3	ICE313	Information Theory	نظرية المعلومات	English	2	1					3	48	52	100	4.00	C		
		4	ICE314	Computer Networks	شبكات الحاسوب	English	3	1	3				3	108	42	150	6.00	C		
		5	ICE315	Data Structure	هيكل البيانات	English	3	1	3				3	108	42	150	6.00	C	ICE225	
		6	ICE316	Digital Communication	الاتصالات الرقمية	English	3						3	48	52	100	4.00	C	ICE222	
							Total	16	6	6	0	0	0	18	438	312	750	30.00		
UGIII	Six	1	ICE321	Digital Signal Processing	معالجة الاشارات الرقمية	English	3		3				3	93	32	125	5.00	C	ICE311	
		2	ICE322	Error Control Coding	ترميز التحكم في الأخطاء	English	2	1					3	48	27	75	3.00	C	ICE313	
		3	ICE323	Network Protocols	بروتوكولات الشبكات	English	2	1	3				3	93	82	175	7.00	C	ICE314	
		4	ICE324	Computer Algorithms	خوارزميات الحاسوب	English	3	1	3				3	108	42	150	6.00	C	ICE315	
		5	ICE325	Computer Architecture	معمارية الحاسوب	English	2	1					3	48	52	100	4.00	C	ICE226	
		6	ICE326	Digital Communication Systems	نظم الاتصالات الرقمية	English	2	1	2				3	78	47	125	5.00	C	ICE316	
							Total	14	5	11	0	0	0	18	468	282	750	30.00		
UGIV	Seven	1	ICE411	Networks Administration	أدارة الشبكات	English	3	1	3			2	3	108	67	175	7.00	C	ICE323	
		2	ICE412	Wireless Mobile Communication	الاتصالات اللاسلكية المتنقلة	English	2	1					3	48	52	100	4.00	C	ICE316	
		3	ICE413	Cryptography	التشفير	English	2	1					3	48	52	100	4.00	C		
		4	ICE414	Operation Systems	نظم التشغيل	English	3	1	3				2	3	108	67	175	7.00	C	ICE325
		5	ICE415	Engineering Project	المشروع الهندسي	English				4			2	3	63	37	100	4.00	C	
		6	ICE416	Digital Image Processing	معالجة الصور الرقمية	English	3				1									
				Data Mining	تعدين البيانات	English	3				1			3	63	37	100	4.00	E	
		Cloud computing	الحوسبة السحابية	English	3				1											
		Multimedia Systems	انظمة الوسائط المتعددة	English	3				1											
							Total	13	4	6	4	1	6	18	438	312	750	30.0		
UGIV	Eight	1	ICE421	Cybersecurity	الامن السيبراني	English	2	1			1	2	3	63	37	100	4.00	C	ICE413	
		2	ICE422	Optical Communications Network and systems	شبكة وأنظمة الاتصالات البصرية	English	2	1	2				3	78	72	150	6.00	C	ICE316	
		3	ICE423	Artificial intelligence	الذكاء الاصطناعي	English	2	1	2			2	3	78	72	150	6.00	C		
		4	ICE424	wireless Networking	الشبكات اللاسلكية	English	2	1	2			2	3	78	72	150	6.00	C	ICE411	
		5	ICE425	Engineering Project	المشروع الهندسي	English				4			2	3	63	37	100	4.00	C	
		6	ICE426	Satellite Communication	اتصالات الأقمار الاصطناعية	English	3				1									
Microwave Circuits and Networks	دوائر وشبكات المايكرويف			English	3				1			3	63	37	100	4.00	E			
		Statistical Signal Processing	معالجة الاشارات الاحصائية	English	3				1											
		Distributed Systems	الانظمة الموزعة	English	3				1											
							Total	11	4	6	4	2	8	18	423	327	750	30.0		
							Total	117	33	65	8	5	17	153	3573	2427	6000	240.0	Must be 240 ECTS	

Note: The student should complete 4 weeks of Summer Internships to fulfil the requirements of the Bachelor's degree

Structured SWL (hr/w) type	Module type	Module type		SWL: Student Workload	USSWL: Unstructured SWL
		B	C		
CL	Class Lecture	B	Basic learning activities	SWL: Student Workload	
Lab	Laboratory	C	Core learning activity	SWL: Structured SWL	
Pr	Practical Training	S	Support or related learning activity	USSWL: Unstructured SWL	
Tut	Tutorial	E	Elective learning activity		
Lect	Online lecture				
Semn	Seminar				

Note: Columns O, Q and R are progmaed, protected and should not be edited

Second Stage - 1 st Semester					
code	Subject	Teaching Scheme			Credits
		L	T	P	
ICE201	Signal & Systems I	3	0	0	3
ICE202	Probability and Random Processes	2	1	0	2
ICE203	Electromagnetic Fields & Propagation	2	1	0	2
ICE204	Electronic Systems	2	1	2	3
ICE205	Object Oriented Programming	2	1	2	3
ICE206	Microprocessor	2	1	2	3
ICE207	Arabic Language	1	0	0	1
ICE208	Academic English	2	0	0	2
ICE209	Crimes of Baath's Regime in Iraq	2			2
Total		18	5	6	21
		29			

Second Stage - 2 nd Semester					
code	Subject	Teaching Scheme			Credits
		L	T	P	
ICE209	Signal & Systems II	3	0	0	3
ICE210	Analogue Communication	2	1	2	3
ICE211	Antenna Theory	2	1	0	2
ICE212	Web Design & Development	2	0	3	3
ICE213	Programming Paradigms	2	1	3	3
ICE214	Digital System Design	2	1	2	3
Total		13	4	10	17
		27			

Third Stage - 1st Semester					
code	Subject	Teaching Scheme			Credits
		L	T	P	
ICE301	Digital Signal Processing	2	1	3	3
ICE302	Digital Communication	3	0	0	3
ICE303	Information Theory	3	0	0	3
ICE304	Computer Networks	2	1	3	3
ICE305	Data Structure	2	1	3	3
ICE306	Computer Architecture	3	0	0	3
ICE307	Academic English	2	0	0	2
Total		17	3	9	20
		29			

Third Stage - 2nd Semester					
code	Subject	Teaching Scheme			Credits
		L	T	P	
ICE308	Technical Assignment(mini Project)	1	0	3	2
ICE309	Digital Communication System	3	0	2	4
ICE310	Error Control Coding	3	0	0	3
ICE311	Network Protocols	2	1	3	3
ICE312	Computer Algorithms	3	0	2	4
ICE313	Data-Base Design	2	0	3	3
Total		14	1	13	19
		28			

Fourth Stage - 1st Semester					
code	Subject	Teaching Scheme			Credits
		L	T	P	
ICE401	Internet Architecture	3	0	0	3
ICE402	Wireless Mobile Communication	3	0	0	3
ICE403	Networks Management	2	1	3	3
ICE404	Operating Systems	2	0	3	3
ICE405	Engineering Project	1	0	3	2
ICE406	Elective I	3	0	0	3
ICE407	Academic English	2	0	0	2
Total		16	1	9	19
		26			

Fourth Stage - 2nd Semester					
code	Subject	Teaching Scheme			Credits
		L	T	P	
ICE408	Cryptography	2	1	0	2
ICE409	Optical Communication Networks and Systems	3	0	3	4
ICE410	Wireless Networking	3	0	3	4
ICE411	Information Systems Analysis	3	0	0	3
ICE412	Engineering Project	1	0	3	2
ICE413	Elective II	3	0	0	3
Total		15	1	9	18
		25			