



المناهج الدراسية لفرع البرامجيات
2021-2020



First Year – First Semester

Code	Title	Hours / Week			
		Lect.	Lab.	Disc.	Units
CSC01	Structured Programming I	3	2	1	4
CSC03	Mathematics I	2	-	1	2
CSC05	Discrete Structure I	2	-	-	2
CSC07	Computer Organization	2	-	1	2
CSC09	Introduction to Statistics	2	-	1	2
CSC51	English Language I	2	-	-	1
CSS01	Fundamental of Programming Techniques	2	-	-	2
	Work shop	-	2	-	2
Totals		15	4	4	17

First Year – Second Semester

Code	Title	Hours / Week			
		Lect.	Lab.	Disc.	Units
CSC02	Structured Programming II	3	2	1	4
CSC04	Mathematics II	2	-	1	2
CSC06	Discrete Structure II	2	-	-	2
CSC08	Logic Design	2	2	1	3
CSC10	Probability Theory	2	-	1	2
CSS02	Software Development Fundamentals	2	-	-	2
CSC45	Software Engineering I	2	2	-	3
Total		15	6	4	18



Second Year – First Semester					
Code Lab.	Title Disc.	Hours / Week			
		Lect.	Lab.	Disc.	Units
CSC11	Object Oriented Programming 1	2	2	1	3
CSC13	Data Structures	2	2	1	3
CSC15	Mathematics 3	2	2	1	3
CSC17	Database Foundation	2	2	1	3
CSS02	Software Development Fundamentals	2	-	-	2
CSC46	Software Engineering 2	2	2	1	3
Totals		12	10	5	17

Second Year – Second Semester					
Code Lab.	Title Disc.	Hours / Week			
		Lect.	Lab.	Disc.	Units
CSC12	Object oriented programming2	2	2	1	3
CSC14	Sorting and Searching Algorithms	2	2	1	3
CSC16	Numerical Analysis	2	2	1	3
CSC18	DataBase Design	2	2	1	3
CSC20	Democracy	2	-	-	1
CSS03	Analysis and Design of Algorithms	2	2	-	3
CSS04	Computational Complexity	2	-	-	2
CSC52	English Language 2	2	-	-	1
Totals		16	10	4	19



Third Year – First Semester					
Code	Title	Hours / Week			
		Lect..	Lab.	Disc.	Units
CSC21	Microprocessor	2	2	1	3
CSC23	Computation Theory	2	-	1	2
CSC53	English Language 3	2	-	-	1
CSC48	Machine Learning	2	2	1	3
CSS05	Computer Graphics and Visualization 1	2	2	1	3
CSS06	Parallel Programming Paradigms	2	2	1	3
CSS07	Software Modelling and analysis	2	2	-	3
CSS08	Information Retrieval Techniques	2	-	-	2
Totals		16	10	5	20

Third Year – Second Semester					
Code	Title	Hours / Week			
		Lect.	Lab.	Disc.	Units
CSC26	Computer Architecture	2	2	1	3
CSC28	Compiler Design	2	2	1	3
CSC42	Computer Network 1	2	2	1	3
CSS09	Computer Graphics and Visualization 2	2	2	1	3
CSS10	Data Mining and Data Warehousing	2	-	1	2
CSS11	Soft Ware Design	2	-	-	2
CSS12	Mobile Application Design	2	2	-	3
Totals		14	10	5	19



Fourth Year – First Semester					
Code	Title	Hours / Week			
		Lect.	Lab.	Disc.	Units
CSC41	Static Web Programming	2	2	1	3
CSC43	Operating System 1	2	2	1	3
CSC29	Image Processing 1	2	2	1	3
CSC31	Data Security 1	2	2	1	3
CSS14	Windows Programming 1	2	2	1	3
CSS16	Human Computer Interaction	2	-	-	2
CSC50	Project	2	2	-	3
Totals		14	12	5	20

Fourth Year – Second Semester					
Code	Title	Hours / Week			
		Lect.	Lab.	Disc.	Units
CSC42	Dynamic Web Programming	2	2	1	3
CSC44	Operating System 2	2	2	1	3
CSC30	Image Processing 2	2	2	1	3
CSS13	Secure Software Engineering	2	-	-	2
CSS15	Windows Programming 2	2	2	1	3
CSC45	Intelligent Search Methods	2	2	-	3
CSC50	Project	2	2	-	3
CSC54	English Language 4	2	-	-	1
Totals		16	12	4	21

University of Technology
Computer Sciences Department
Information System Branch
2021-2020



المناهج الدراسية لفرع نظم المعلومات

للعام الدراسي 2021-2020



First Year – First Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC01	Structured Programming 1	3	2	1	4
CSC03	Mathematics 1	2	-	1	2
CSC05	Discrete Structure 1	2	-	-	2
CSC07	Computer Organization	2	-	1	2
CSC09	Introduction to Statistics	2	-	1	2
CSI01	Information System	2	-	-	2
CSC51	English Language 1	2	-	-	1
	Work shop	-	2	-	2
		15	4	4	17

First Year – Second Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC02	Structured Programming 2	3	2	1	4
CSC04	Mathematics 2	2	-	1	2
CSC06	Discrete Structure 2	2	-	-	2
CSC08	Logic Design	2	2	1	3
CSC10	Probability Theory	2	-	1	2
CSI02	Information Technology	2	-	-	2
CSI03	E - Techniques	2	-	-	2
		15	4	4	17



Second Year – First Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC11	Object Oriented Programming 1	2	2	1	3
CSC13	Data Structures	2	2	1	3
CSC15	Mathematics 3	2	2	1	3
CSC17	Database Foundation	2	2	1	3
CSI04	Projects Management	2	-	1	2
CSI02	Information Technology	2	-	-	2
CSI03	E - Techniques	2	-	-	2
		14	8	5	18

Second Year – Second Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC12	Object oriented programming2	2	2	1	3
CSC14	Sorting and Searching Algorithms	2	2	1	3
CSC16	Numerical Analysis	2	2	1	3
CSC18	DataBase Design	2	2	1	3
CSI05	System Analysis and Design	2	-	-	3
CSI06	IT Projects Management	2	2	-	3
CSC20	Democracy	2	-	-	1
CSC52	English Language 2	2	-	-	1
		16	10	4	20



Third Year – First Semester					
Subject Code	Subject in English	/ Week Number of Hours			
		Theory	Lab	Tutorial	Units
CSC21	Microprocessor	2	2	1	3
CSC23	Computation Theory	2	-	1	2
CSC25	Operations Research	2	-	-	2
CSC27	Knowledge Representation	2	2	-	3
CSC35	Distributed database 1	2	2	1	3
CSI07	Computer Graphic	2	2	1	3
CSI08	Web Information Systems	2	2	1	3
CSC53	English Language 3	2	-	-	1
		16	10	5	20

Third Year – Second Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC22	Computer Architecture	2	2	1	3
CSC24	Compiler Design	2	2	1	3
CSC26	Optimization	2	-	-	2
CSC28	Intelligent Searching Techniques	2	2	-	3
CSI09	Data Warehouse	2	-	1	2
CSI10	Geographic Information System	2	2	1	3
CSI11	Business Application Development	2	2	-	3
		14	10	4	19



Fourth Year – First Semester					
Subject Code	Subject in English	/ Week Number of Hours			
		Theory	Lab	Tutorial	Units
CSC41	Static Web Programming	2	2	1	3
CSC43	Operating System 1	2	2	1	3
CSC31	Data Security 1	2	2	1	3
CSGS41	Computer networking 1	2	2	1	3
CSC49	Soft Computing	2	2	1	3
CSI12	Information System Management	2	-	-	2
CSC50	Project	2	2	-	3
		14	12	5	20

Fourth Year – Second Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC42	Dynamic Web Programming	2	2	1	3
CSC44	Operating System 2	2	2	1	3
CSC32	Data Security 2	2	2	1	3
CSI13	Cloud computing foundations	2	-	1	2
CSI14	Data Analysis Methods	2	2	1	3
CSI15	Accounting information systems	2	-	-	2
CSC50	Project	2	2	-	3
CSC54	English Language 4	2	-	-	1
		16	10	5	20

University of Technology
Computer Sciences Department
Information System Branch
2021-2020





المناهج الدراسية لفرع الذكاء
الاصطناعي

2021-2020



First year Syllabus

First course

منهج المرحلة الاولى

No. of Units	Tutorial	No. of Lab. hour	No. Of Theory hour	رمز المادة Subject Code	Subject	اسم المادة	ت
4	1	2	3	CSCL1101	Structured Programming I	البرمجة المهيكلة 1	1
2	1	-	2	CSCL1103	Mathematics I	الرياضيات 1	2
2	1	-	2	CSCL1105	Discrete Structures I	الهياكل المتقطعة 1	3
2	1	-	2	CSCL1107	Computer Organization	تركيب الحاسوب	4
2	1	-	2	CSCL1109	Introduction to Statistics	مدخل الى الاحصاء	5
2	1	-	2	CSAI1101	Introduction to A.I	مقدمة الى الذكاء الاصطناعي	6
1	-	-	2	CSCL1111	English Language 1	اللغة الانكليزية 1	7
2	-	2	-		Work shop	المعامل	8
17	6	4	15		Total		

Total No. of Unit for 1st Semester: (17)Units

مجموعة الوحدات للفصل الدراسي الاول: (17) وحدة

Second Course

No. of Units	Tutorial	No. of Lab. hour	No. Of Theory hour	رمز المادة Subject Code	Subject	اسم المادة	ت
4	1	2	3	CSCL1202	Structured Programming II	البرمجة المهيكلة 2	1
2	1	-	2	CSCL1204	Mathematics II	الرياضيات 2	2
2	1	-	2	CSCL1206	Discrete Structures II	الهياكل المتقطعة 2	3
3	1	2	2	CSCL1208	Logic Design	التصميم المنطقي	4
2	1	-	2	CSCL1210	Probabilistic Theory	نظرية الاحتمالات	5
3	1	2	2	CSAI1202	Prolog Language	لغة برولوج	6
2	1	-	2	CSAI1203	Knowledge Representation	تمثيل المعرفة	7
18	7	6	15		Total		

Total No. of Unit for 2nd Semester: (18)Units

مجموعة الوحدات للفصل الدراسي الثاني: (18) وحدة

Total No. of Unit for Year: (35) Units

مجموعة الوحدات لسنة دراسية: (35) وحدة



Second Year Syllabus
First course

منهج المرحلة الثانية

No. of Units	Tutorial	No. of Lab. hour	No. Of Theory hour	رمز المادة Subject Code	Subject	اسم المادة	ت
3	1	2	2	CSCL2112	Object Oriented Programming I	برمجة شينية 1	1
3	1	2	2	CSCL2114	Data Structures	هياكل بيانات	2
3	1	2	2	CSCL2116	Mathematics III	رياضيات 3	3
3	1	2	2	CSCL2118	Database Foundation	اساسيات قواعد البيانات	4
3	1	2	2	CSAI2104	NLP and Python Language	معالجة لغات طبيعية ولغة بايثون	5
3	1	2	2	CSAI1202	Prolog Language	لغة برولوج	6
18	6	12	12		Total		

Second Course

No. of Units	Tutorial	No. of Lab. hour	No. Of Theory hour	رمز المادة Subject Code	Subject	اسم المادة	ت
3	1	2	2	CSCL2213	Object oriented programming II	برمجة شينية 2	1
3	1	2	2	CSCL2215	Sorting and Searching Algorithms	خوارزميات البحث والترتيب	2
3	1	2	2	CSCL2217	Numerical Analysis	تحليل عددي	3
3	1	2	2	CSCL2219	Database Design	تصميم قواعد بيانات	4
2	1	-	2	CSAI2205	Fuzzy Logic	منطق مضبب	5
3	1	2	2	CSAI2206	Searching Strategies	استراتيجيات البحث	6
1	-	-	2	CSCL2221	Democracy	ديمقراطية	7
1	-	-	2	CSCL2122	English Language II	لغة انكليزية 2	8
19	6	10	16		Total		



Third Year

Third Year – First Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC21	Microprocessor	2	2	1	3
CSC23	Computation Theory	2	-	1	2
CSC25	Operations Research	2	-	-	2
CSA07	Computer Graphics 2D	2	2	1	3
CSA08	Natural Language Processing	2	2	1	3
CSA09	Algorithm and its Complexities	2	2	-	3
CSA12	Metaheuristic Search	2	2	1	3
CSC53	English Language 3	2	-	-	1
		16	10	5	20

Third Year – Second Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC22	Computer Architecture	2	2	1	3
CSC24	Compiler Design	2	2	1	3
CSC26	Optimization	2	-	-	2
CSA11	Visualization	2	2	1	3
CSA10	Expert System	2	2	-	3
CSA13	Speech Recognition	2	2	-	3
CSA14	Machine Learning	2	2	-	3
		14	12	3	20



Fourth Year – First Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC41	Static Web Programming	2	2	1	3
CSC43	Operating system 1	2	2	1	3
CSC31	Data Security1	2	2	1	3
CSC33	Computer Network 1	2	2	1	3
CSA15	Planning & Robotics	2	2	-	3
CSA16	Data Warehouse	2	-	-	2
CSC50	Project	2	2	-	3
		14	12	4	20

Fourth Year – Second Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC42	Dynamic Web Programming	2	2	1	3
CSC44	Operating system 2	2	2	1	3
CSC32	Data Security 2	2	2	1	3
CSA17	Machine Vision	2	2	1	3
CSA18	Advanced Intelligent Search	2	2	-	3
CSA19	Data Mining	2	-	-	2
CSC50	Project	2	2	-	3
CSC54	English Language 4	2	-	-	1
		16	12	4	21



المناهج الدراسية لفرع الأمنية للعام الدراسي 2021-2020

First Year Syllabus

مناهج المرحلة الاولى

المرحلة الاولى – الفصل الاول							
ت	رمز الدرس	عنوان الدرس	Subject	عدد الساعات في الاسبوع			
				النظري	العملي	المناقشة	الوحدات
1	CSCL1101	برمجة مهيكلة 1	Structured Programming I	3	2	1	4
2	CSCL1103	رياضيات 1	Mathematics I	2	-	1	2
3	CSCL1105	هياكل متقطعة 1	Discrete Structures I	2	-	-	2
4	CSCL1107	تركيب حاسوب	Computer Organization	2	-	1	2
5	CSCL1109	مقدمة الى الاحصاء	Introduction to Statistics	2	-	1	2
6	CSCS1101	مبادئ أمنية البيانات	Principles of Data Security	2	-	-	2
7	CSCL1111	لغة انكليزية 1	English Language 1	2	-	-	1
8		المعامل	Work shop	-	2	-	2
Total				15	4	4	17

المرحلة الاولى – الفصل الثاني							
ت	رمز الدرس	عنوان الدرس	Subject	عدد الساعات في الاسبوع			
				النظري	العملي	المناقشة	الوحدات
1	CSCL1202	برمجة مهيكلة 2	Structured Programming II	3	2	1	4
2	CSCL1204	رياضيات 2	Mathematics II	2	-	1	2
3	CSCL1206	هياكل متقطعة 2	Discrete Structures II	2	-	-	2
4	CSCL1208	تصميم منطقي	Logic Design	2	2	1	3
5	CSCL1210	نظرية احتمالات	Probabilistic Theory	2	-	1	2
6	CSCS1202	نظرية الارقام	Numbering Theory	2	-	-	2
7	CSCS1203	تقنيات الترميز	Coding Theory	2	-	-	2
Total				15	4	4	17



Second Year Syllabus

مناهج المرحلة الثانية

المرحلة الثانية – الفصل الاول							
ت	رمز الدرس	عنوان الدرس	Subject	عدد الساعات في الاسبوع			
				النظري	العملي	المناقشة	الوحدات
1	CSCL2112	برمجة شينية 1	Object Oriented Programming 1	2	2	1	3
2	CSCL2114	هياكل بيانات	Data Structures	2	2	1	3
3	CSCL2116	رياضيات 3	Mathematics 3	2	2	1	3
4	CSCL2118	اساسيات قواعد البيانات	Database Foundation	2	2	1	3
5	CSCS2104	التشفير الانسيابي	Stream Cipher	2	2	1	3
6	CSCS1203	تقنيات الترميز	Coding Theory	2	-	-	2
Total				12	10	5	17

المرحلة الثانية – الفصل الثاني							
ت	رمز الدرس	عنوان الدرس	Subject	عدد الساعات في الاسبوع			
				النظري	العملي	المناقشة	الوحدات
1	CSCL2213	برمجة شينية 2	Object oriented programming2	2	2	1	3
2	CSCL2215	خوارزميات البحث والترتيب	Sorting and Searching Algorithms	2	2	1	3
3	CSCL2217	تحليل عددي	Numerical Analysis	2	2	1	3
4	CSCL2219	تصميم قواعد بيانات	DataBase Design	2	2	1	3
5	CSCS2205	أمنية تصميم البرمجيات	Secure Software Design	2	-	-	2
6	CSCS2206	أمن المعلومات والبيانات	Information & Data Security	2	-	-	2
7	CSCL2221	ديمقراطية	Democracy	2	-	-	1
7	CSCL2122	لغة انكليزية 2	English Language 2	2	-	-	1
Total				16	8	4	18



Third Year

Third Year – First Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC21	Microprocessor	2	2	1	3
CSC23	Computation Theory	2	-	1	2
CSC27	Knowledge Representation	2	2	-	3
CSC33	Computer Networks 1	2	2	1	3
CSS07	Malicious codes	2	-	1	2
CSS08	Public Key	2	2	1	3
CSS09	Multimedia Fundamentals	2	2	-	3
CSC53	English Language 3	2	-	-	1
		16	10	5	20

Third Year – Second Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC22	Computer Architecture	2	2	1	3
CSC24	Compiler Design	2	2	1	3
CSC28	Intelligent Searching Techniques	2	2	-	3
CSS11	Mobile and network Security	2	-	1	2
CSS12	Ethical Hacking	2	-	1	2
CSS13	Block cipher Cryptography	2	2	1	3
CSS10	Multimedia Security	2	2	-	3
		14	10	5	19



Fourth Year – First Semester

Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC41	Static Web Programming	2	2	1	3
CSC43	Operating system 1	2	2	1	3
CSS14	Cloud Computing Security	2	-	1	2
CSS15	Information Hiding & Watermarking	2	2	1	3
CSS16	Advance Cryptography	2	-	-	2
CSS17	Intelligent Systems	2	2	1	3
CSC50	Project	2	2	-	3
		14	10	5	19

Fourth Year – Second Semester

Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSC41	Dynamic Web Programming	2	2	1	3
CSC43	Operating system 2	2	2	1	3
CSS18	Crypt Analysis	2	-	1	2
CSS19	Authentication and Access Control	2	-	1	2
CSS20	Cyber Security	2	-	-	2
CSC49	Soft Computing	2	2	-	3
CSC50	Project	2	2	-	3
CSC54	English Language 4	2	-	-	1
		16	8	4	19