Bachelor of Science in Computer Engineering Model Study Plan (2022-2023 Cohort onwards)

For Students Admitted to the University from the Fall Semester Total Degree Credit hours: 144

1 1 (Fal	ESPUIG MATHI CSBPII PHYSIG GEITI CSBPII Physi3 MATHI CENGE	Introduction to Academic English for Information Technology I Agriculture and Problem Solving Agriculture and Problem Solving Command Physics Founds Information Founds Indicated Medication Founds Information Agriculture and Physics Lab I Command Physics Lab I Command Physics Lab I Command Physics Lab I	3 Gen Ed Course ("Lives 1: 1-New 3: Quantitative Newcoring) 3 Gen Ed Course (Dutes 1: New 4: Courted Thinking) 3 Gen Ed Course (Dutes 1: New 4: Course) 3 Gen Ed Course (Dutes 1: New 3: Natural Sciences) 3 Gen Ed Course (Dutes 1: New 3: Natural Sciences) 3 Gen Ed Course (Dutes 1: New 3: Natural Sciences) 3 Gen Ed Course (Dutes 1: New 3: Natural Natural Revolution) 1 Specialization	2 (Spring)	Course Code CENG202 MATH110 CS89219 CENG205 CS89221 H55105	Discrete Mathematics Calculus II Object Oriented Programming	33 33 54	College Requirement College Requirement College Requirement College Requirement College Requirement Seculifaction
1 (Fal	MATH1 CSBP11 PHYS10 GET11 CSBP12 Phys13 MATH1 CENG2		3 Gen Ed Course ("Lives 1: 1-New 3: Quantitative Newcoring) 3 Gen Ed Course (Dutes 1: New 4: Courted Thinking) 3 Gen Ed Course (Dutes 1: New 4: Course) 3 Gen Ed Course (Dutes 1: New 3: Natural Sciences) 3 Gen Ed Course (Dutes 1: New 3: Natural Sciences) 3 Gen Ed Course (Dutes 1: New 3: Natural Sciences) 3 Gen Ed Course (Dutes 1: New 3: Natural Natural Revolution) 1 Specialization	2 (Spring)	MATH110 CSBP219 CENG205 CSBP221	Calculus II Object Oriented Programming Digital Design & Computer Organization Programming Lab II	33 33 54	College Requirement College Requirement College Requirement
1 (Fal	CSBP11 PHYS10 GEIT11 CSBP12 Phys13 MATH1 CENG2	9 Appointmen and Problem Solving 5 General Physics: 1 Fourth Industrial Repolation 1 Programming Lish 1 6 General Physics Lish 1 60 Linear Applies Lish 1	3 Gen Ed Course (Cluster 3: Area 4: Critical Thinking) 3 Gen Ed Course (Cluster 3: Area 3: Natural Sciences) 3 Gen Ed Course (Cluster 3: Area 3: Fourth Industrial Revolution) 2 Specialization 2 Specialization	2 (Spring)	CSBP219 CENG205 CSBP221	Object Oriented Programming Digital Design & Computer Organization Programming Lab II	3	College Requirement College Requirement
Fal	PHYS10 GETT11 CSBP12 Phys13 MATH1 CENG2	5 General Physics I 2 Fourth industrial Revolution 1 Programming Lab I 5 General Physics Lab I 40 Linear Algebra I	3 Gan Ed Course (Cluster 3: Area 3: Natural Sciences) 3 Gen Ed Course (Cluster 2: Area 3: Fourth Industrial Revolution) 5 (special saston 1 Special saston	(Spring)	CENG205 CSBP221	Digital Design & Computer Organization Programming Lab II	3	College Requirement
Fal	GETT11 CSBP12 Phys13 MATH1 CENG2	2 Fourth Industrial Revolution 1 Fougarening Lab 1 5 General Physics Lab 1 40 Linear Algebra 1	3 Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution) 1 Specialization 1 Specialization	(Spring)	CS8P221	Programming Lab II	1	
۶ (Fal	Phys13 MATH1 CENG2	1 Programming Lab I 5 General Physics Lab I 40 Linear Algebra I	1 Specialization 1 Specialization	(Spring)				
∾ 3	Phys13 MATH1 CENG2	General Physics Lab I General Physics Lab I Linear Algebra I	1 Specialization	(568)				
~ 3	MATH1 CENG2	40 Linear Algebra I	17			Citilizes Adules	3	Gen Ed Course (Cluster 2: Area 3: Emirates Society)
~ 3	CENG2		1				_	
~ 3	CENG2						16	
∾ 3			3 Specialization	4 (Spring)	MATH275			Specialization
			3 Specialization		CENG221	Computer Architecture		Specialization
	CENG2		1 Specialization		PHYS231	Electronics Fundamentals		Specialization
8	PHYS13		3 Specialization		CENG210			Specialization
≚ (Fal	PHYS14		1 Specialization			Basic Biology I /General Chemistry I Choose ONE		College Requirement
(1 (1			3 Gen Ed Course (Cluster 3: Area 2: Sustainability)		ISLM100/ISLM101	Islamic Culture/Biography of the Prophet "Sira"	3	Gen Ed Course (Cluster 2: Area 4: Islamic Culture)
	CSBP31	9 Data Structures	3 College Requirement					
			17				18	
	ELEC37		3 Specialization	6 (Spring)	CENG320			Specialization
· -	ELEC37		1 Specialization		CENG324	Digital System Design		Specialization
9	CENG3:		3 Specialization		CENG325	Digital Design lab		Specialization
25	CENG3:		1 Specialization		CS8P315			College Requirement
≝ (Fal	STAT21		3 College Requirement		CENG529	Networking Lab		Majojor Elective Lab
(1 01			3 Specialization		Elective	Student choice		Major Elective
	CENG5	Computer Network Protocols	3 Major Elective		Elective	Student choice	3	Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts)
			17				17	
_	SWEB3		3 Specialization	8 (Spring)	ITBP481		3	College Requirement
7	ITBP41		3 Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship)		ITBP370			College Requirement
ē	ITEP48		3 College Requirement		Elective			Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences)
^g (Fal	Elective		3 Major Elective		Elective			Free Elective
(1 01	Elective		3 Major Elective		Elective			Free Elective
			E5				15	
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υ 9								
ar	ITBP495	Internship	2					
≗ (Fal	I)							
(Fdi	1)							
			17					

Bachelor of Science in Computer Engineering Model Study Plan (2022-2023 Cohort onwards)

For Students Admitted to the University from the Spring Semester Total Degree Credit hours: 144

Total Degree Clean Hours. 144										
	Semester	Course Code	Course Title	B	Course type	Semester	Course Code	Course Title	СН	Course type
Year 1	1 (Spring)	ESPU1081	Introduction to Academic English for Information Technology I	3	Gen Ed Course (Cluster 1: Area 2: English Communication)	2	CENG202	Discrete Mathematics	3	College Requirement
		MATH105	Calculus I		Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning)		MATH110	Calculus II		College Requirement
		CSBP119	Algorithms and Problem Solving		Gen Ed Course (Cluster 1: Area 4: Critical Thinking)	2	CSBP219	Object Oriented Programming		College Requirement
		PHYS105	General Physics I		Gen Ed Course (Cluster 3: Area 1: Natural Sciences)		CENG205	Digital Design & Computer Organization	3	College Requirement
		GEIT112	Fourth Industrial Revolution	3	Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution)	(Fall)	CSBP221	Programming Lab II		Specialization
		CSBP121	Programming Lab I		Specialization	(i aii)	HSS105	Emirates Studies	3	Gen Ed Course (Cluster 2: Area 3: Emirates Society)
		Phys135	General Physics Lab 1	2	Specialization				П	
				27					16	
		MATH140	Linear Algebra I	3	Specialization	4	Mith275	Ordinary Differential Equations	3	Specialization
	2	CENG201	Circuits Fundamentals	3	Specialization		CENG221	Computer Architecture	3	Specialization
. 2	3	CENG231	Circuits Lab		Specialization		PHYS231	Electronics Fundamentals		Specialization
Year		PHYS110	General Physics II		Specialization		CENG210	Communication & Networks Fundamentals		Specialization
œ.	(Spring)	PHYS140	General Physics Lab II		Specialization	(Fall)		Basic Biology I /General Chemistry I Choose ONE		College Requirement
1	Shi ii ig)	GESU121	Sustainability	3	Gen Ed Course (Cluster 3: Area 2: Sustainability)	(Fall)	ISLM100/ISLM101	Islamic Culture/Biography of the Prophet "Sira"	3	Gen Ed Course (Cluster 2: Area 4: Islamic Culture)
		CS8P319	Data Structures	3	College Requirement				П	
				27					18	
		CENG320	Signals and Systems I		Specialization		ELEC370			Specialization
	5	CENG324	Digital System Design		Specialization	_	ELEC375	Electronic Circuits Lab		Specialization
3		CENG325	Digital Design lab	1	Specialization	6 (Fall)	CENG328	Introduction to Embedded Systems	3	Specialization
Year		CS8P315	Operating Systems Fundamentals		College Requirement		CENG329	Introduction to Embedded Systems Lab		Specialization
œ.	(Spring)	CENG529	Networking Lab		Majojor Elective Lab		STAT210	Probability and Statistics	3	College Requirement
	(Spilis)	CENG530	Computer Network Protocols		Major Elective		ITBP301	Security Principles & Practice		Specialization
		Elective	Student choice	3	Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts)		Elective	Student chaice	3	Major Elective
				27					17	
	7	SWEB300	Software Engineering Fundamentals		Specialization	8 (Fall)	ITBP481			College Requirement
Year 4		ITBP418	Entrepreneurship in Information Technology		Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship)		ITBP370	Professional Responsibility in Information Technology		College Requirement
æ		ITBP480	Senior Graduation Project I	3	College Requirement		Elective	Student choice	3	Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences)
e.	(Spring)	Elective	Student choice		Major Elective		Elective			Free Elective
1		Elective			Major Elective		Elective	Student chaice	3	Free Elective
				15					15	
5	9									
2										
æ		ITBP495	Internship	12						
Year	(Spring)									
	Spring/								0	

Bachelor of Science in Computer Engineering Model Study Plan (2025-2026 Cohort onwards)

For Students Admitted to the University from the Fall Semester Total Degree Credit hours: 131

	Total Degree Great Hours. 131									
	Semester	Course Code	Course Title	CH Course type	Semester	Course Code	Course Title	СН	Course type	
		GEAE101	Academic English for Humanities and STEM	3 Gen. Ed. Theme 2: Academic Language Proficiency		CENG202	Discrete Mathematics	3	College Requirement	
		MATH105	Calculus I	3 Specialization		MATH110	Calculus II	3	College Requirement	
5	1	CS8P119	Algorithms and Problem Solving	3 Gen Ed Course (Cluster 1: Area 4: Critical Thinking)	2	CS8P219	Object Oriented Programming	3	College Requirement	
ea		PHYS105	General Physics I	3 Specialization		CENG205	Digital Design & Computer Organization	3	College Requirement	
×.	(Fall)	CENG110	Artificial Intelligence Fundamentals and Applications	3 Gen. Ed. Theme 3: Innovation	(Spring)	CSBP221	Programming Lab II	1	Specialization	
1	(Fall)	CS8P121	Programming Lab I	1 Specialization	(Shiilig)	MATH140	Linear Algebra I	3	Specialization	
		PHYS135	General Physics Lab I	1 Specialization				П		
				17				16		
		CENG210	Communication & Networks Fundamentals	3 Specialization	4	MATH275	Ordinary Differential Equations		Specialization	
		CENG201	Circuits Fundamentals	3 Specialization		CENG221	Computer Architecture	3	Specialization	
~	3	CENG231	Circuits Lab	1 Specialization		STAT210	Probability and Statistics		Specialization	
œ		PHYS110	General Physics II	3 Specialization	10	CSBP315	Operating Systems Fundamentals		Specialization	
×.	(Fall)	CS8P319	DataStructures	3 College Requirement	(Spring)		Basic Biology I /General Chemistry I Choose ONE		College Requirement	
1	(Faii)	GEEM110	Contemporary Emirati Studies	3 Gen. Ed. Theme 1: UAE National Identity	(-1- 0)	PHYS140	General Physics Lab II	1	Specialization	
								П		
				16				16		
		ITBP301	Security Principles & Practice	3 Specialization	6 (Spring)	CENG324	Digital System Design		Specialization	
	_	CENG328	Introduction to Embedded Systems	3 Specialization		CENG325	Digital Design lab	1	Specialization	
×	5	CENG329	Introduction to Embedded Systems Lab	1 Specialization		CENG340	Autonomous Systems: Fundamentals and Applications	3	Specialization	
<u>~</u>		GESU121	Sustainability	3 Gen. Ed. Theme 5: Sustainability		CENG341	Autonomous Systems Lab	1	Specialization	
×.	(Fall)	CENG320		3 Specialization		ITBP270			College Requirement	
	(Fall)	CENG529	Networking Lab	1 Specialization		Elective	Student choice		Major Elective	
		Elective	Student choice	3 Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11		Elective	Student choice	3	Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11	
				17				16		
		SWEB300		3 Specialization	0	ITBP481	Senior Graduation Project II		College Requirement	
4	/	ITBP218	Entrepreneurship and New Venture Creation in IT	3 Gen. Ed. Theme 4: Entrepreneurship	8	Elective	Student choice		Major Elective	
ē		ITEP480	Senior Graduation Project I	3 College Requirement		Elective	Student choice		Free Elective	
ě	(Fall)	Elective	Student choice	3 Major Elective	(Spring)	Elective	Student choice	3	Free Elective	
	(i aii)	Elective	Student choice	3 Major Elective	(Spring)					
				15				12		
	_									
Ϋ́	9									
œ		ITBP496	Internship	6						
×	(Fall)									
	(i all)									