Bachelor of Science in Computer Engineering Model Study Plan (2020-2021 Cohort onwards)

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

Year 1

Semester	Course Code	Course Title	CH	Course type	Semester	Course Code	Course Title	CH	Course type
1 (Fall)	ESPU1081	Introduction to Academic English for Information Technology I	3	Gen Ed Course (Cluster 1: Area 2: English Communication)	2 (Spring)	CENG202	Discrete Mathematics	3	College Requirement
	MATH105	Calculus I	3	Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning)		MATH110	Calculus II	3	College Requirement
	CSBP119	Algorithms and Problem Solving	3	Gen Ed Course (Cluster 1: Area 4: Critical Thinking)		CSBP219	Object Oriented Programming	3	College Requirement
	PHYS105	General Physics I	3	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)		CSBP221	Programming Lab II	1	Specialization
	CSBP121	Programming Lab I	1	Specialization		HSS105	Emirates Studies	3	Gen Ed Course (Cluster 2: Area 3: Emirates Society)
	Phys135	General Physics Lab I	1	Specialization					

Year 2

Semester	Course Code	Course Title	CH	Course type	Semester	Course Code	Course Title	CH	Course type
3 (Fall)	MATH140	Linear Algebra I	3	Specialization	4 (Spring)	MATH275	Ordinary Differential Equations	3	Specialization
	CENG201	Circuits Fundamentals	3	Specialization		CENG221	Computer Architecture	3	Specialization
	CENG231	Circuits Lab	1	Specialization		PHYS231	Electronics Fundamentals	3	Specialization
	PHYS110	General Physics II	3	Specialization		CENG210	Communication & Networks Fundamentals	3	Specialization
	PHYS140	General Physics Lab II	1	Specialization		BIOC100/CHEM111	Basic Biology I /General Chemistry I ChooseONE	3	College Requirement
	GESU121	Sustainability	3	Gen Ed Course (Cluster 3: Area 2: Sustainability)		ISLM100	Islamic Culture	3	Gen Ed Course (Cluster 2: Area 4: Islamic Culture)
	CSBP319	Data Structures	3	College Requirement					

Year 3

Semester	Course Code	Course Title	CH	Course type	Semester	Course Code	Course Title	CH	Course type
5 (Fall)	ELEC370	Electronic Circuits	3	Specialization	6 (Spring)	CENG320	Signals and Systems I	3	Specialization
	ELEC375	Electronic Circuits Lab	1	Specialization		CENG324	Digital System Design	3	Specialization
	CENG328	Introduction to Embedded Systems	3	Specialization		CENG325	Digital Design lab	1	Specialization
	CENG329	Introduction to Embedded Systems Lab	1	Specialization		CSBP315	Operating Systems Fundamentals	3	College Requirement
	STAT210	Probability and Statistics	3	College Requirement		CENG529	Networking Lab	1	Major Elective Lab
	ITBP301	Security Principles & Practice	3	Specialization		Elective	Student choice	3	Major Elective
	CENG530	Computer Network Protocols	3	Major Elective		Elective	Student choice	3	Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts)

Year 4

Semester	Course Code	Course Title	CH	Course type	Semester	Course Code	Course Title	CH	Course type
7 (Fall)	SWEB300	Software Engineering Fundamentals	3	Specialization	8 (Spring)	ITBP481	Senior Graduation Project II	3	College Requirement
	ITBP418	Entrepreneurship in Information Technology	3	Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship)		ITBP370	Professional Responsibility in Information Technology	3	College Requirement
	ITBP480	Senior Graduation Project I	3	College Requirement		Elective	Student choice	3	Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences)
	Elective	Student choice	3	Major Elective		Elective	Student choice	3	Free Elective
	Elective	Student choice	3	Major Elective		Elective	Student choice	3	Free Elective

Year 5

Semester	Course Code	Course Title	CH	Course type
9 (Fall)	ITBP495	Internship	12	