



The International University of Beirut
الجامعة الدولية في بيروت

Major Title: Bachelor of Engineering in Computer and Communications Engineering
Major Code: BECCE
Level: underGraduate
Number Of Credits: 150
Date: 10-08-2022

Bachelor of Engineering in Computer and Communications Engineering (BECCE)

Major Electives

Code	Title	Credits	Prerequisites	Corequisites
	Major Elective	3		
	Major Elective	3		
	Major Elective	1		
Total		7		

Core Requirements

Code	Title	Credits	Prerequisites	Corequisites
CSCI250	Introduction to Programming	3		ENGL101-CSCI250L
CSCI250L	Introduction to Programming Lab	1		ENGL101-CSCI250
CSCI300	Intermediate Programming with Objects	3	CSCI250L-CSCI250	
EENG250	Electric Circuits I	3	PHYS161-PHYS160-MATH161-MATH160-ENGL051	ENGG200-MATH210
ENGG200	Introduction to Engineering	3	MATH160-CHEM160	
ENGG300	Engineering Economics	3	ENGL201-MATH225-MATH220	
MATH210	Calculus II	3	MATH161-MATH160	
MATH220	Calculus III	3	MATH210	
MATH225	Linear Algebra with Applications	3	ENGL051-MATH161	
MATH270	Ordinary Differential Equations	3	MATH210	MATH225
MATH310	Probability & Statistics for Scientists & Engineers	3	MATH210-ENGL201	
PHYS220	Physics for Engineers	3	PHYS161-ENGL101-PHYS160	MATH210
Total		34		

Major Requirements

Code	Title	Credits	Prerequisites	Corequisites
CENG250	Digital Logic I	3		EENG250
CENG325	Software Applications and Design	3		CSCI300
CENG335	Digital Logic II	3	CSCI250-CENG250	
CENG352L	Digital Logic Circuits Lab	1	CENG250-EENG301L	
CENG375	Introduction to Database Systems	3	CENG325-CSCI300	

CENG380	Microprocessors and Microcontrollers	3	CENG250-CENG335-EENG250-CSCI250	CENG352L
CENG400	Computer Organization and Design	3	CENG335-CENG250-CENG380	
CENG400L	Microcontroller Applications Lab	1	CENG380	
CENG415	Communication Networks	3	CENG250-CENG325-CSCI250-CSCI300	
CENG420	Web Programming and Technologies	3	CENG325-CSCI300-CENG375	
CENG430L	Linux Lab	1	CENG380-CENG325	
CENG435	Mobile Application Development	3	CENG325-CSCI300-CENG375	
CENG450L	Scripting Languages Lab	1	CENG430L	
CENG455L	Communication Networks Lab	1	CENG415	
CENG460	Operating Systems	3	CENG380-CSCI300	
CENG470	Data Structures and Analysis of Algorithms	3	CSCI300	
CENG507	Embedded Systems	3	CENG400	
CENG557	Advanced Network Architectures	3	ENGG515-CENG455L-CENG415	
CENG595	Capstone Project	6	ENGL251-EENG587-ENGG450-CENG435-CENG420-CENG557	
CENG685	Information Security	3	CENG557	
EENG300	Electric Circuits II	3	EENG250	EENG301L
EENG301L	Electric Circuits Lab	1	EENG250	EENG300
EENG350	Electronic Circuits I	3	ENGG200-CENG250-EENG300-EENG250	EENG350L
EENG350L	Electronic Circuits I Lab	1	EENG300-EENG250-EENG301L	EENG350
EENG385	Signals and Systems	3	MATH225-EENG300	MATH310-MATH270
EENG388	Electromagnetic Fields and Waves	3	MATH270-PHYS220-MATH220-EENG300	
EENG447	Analog Communication Systems	3	MATH310-EENG385	
EENG467L	Analog Communication Systems Lab	1	EENG447	
EENG527	Digital Signal Processing	3	EENG350-EENG447	
EENG537	Digital Communications	3	EENG388-EENG447	
EENG587	Wireless Communication	3	EENG537	
EENG637L	Advanced Digital Communication Lab	1	EENG577-EENG537	
ENGG499	Practical Experience	4		
ENGG515	Advanced Engineering Mathematics	3	MATH310-MATH270-MATH225-MATH220	
Total		88		

General Education Requirements

Code	Title	Credits	Prerequisites	Corequisites
ARAB200	Arabic Language and Literature	3		
CULT200	Introduction to Arab - Islamic Civilization	3		
ENGG450	Engineering Ethics and Professional Practice	3	ENGL251	ENGG300

ENGL201	Composition and Research Skills	3	ENGL151	
ENGL251	Communication Skills	3	ENGL201	
Total		15		
General Education Electives				
Code	Title	Credits	Prerequisites	Corequisites
	General Education Electives	3		
	General Education Electives	3		
Total		6		
Major Elective Courses				
Code	Title	Credits	Prerequisites	Corequisites
CENG566	Machine Learning	3	EENG527-ENGG515	CENG566L
CENG566L	Machine Learning Laboratory	1	ENGG515-EENG527	CENG566
CENG625	Cryptography & Advanced Computer Security	3	CENG557-ENGG515	
CENG643	Distributed Systems and Network Programming	3		CENG557
CENG644	Image Processing	3	EENG527	
CENG646	Data Mining	3	CENG566-CENG375	
CENG655	Queueing Theory	3	EENG447	CENG557
CENG675	Multimedia Networks	3	EENG527-CENG415	CENG557
CENG677	Fiber Optics	3		CENG557
CENG678	Image Processing and Computer Vision	3	CENG566-EENG527-ENGG515	
EENG400	Electronic Circuits II	3	EENG350	
EENG435	Control Systems	3	PHYS220-MATH270-MATH225-MATH310-EENG300-EENG385	
EENG577	Advanced Digital Communications	3	ENGG515-EENG537	