

	The International University of Beirut الجامعة الدولية في بيروت		Major Title: Bachelor of Engineering in Surveying Engineering Major Code: BESURV Level: underGraduate Number Of Credits: 150 Date: 10-08-2022	
Bachelor of Engineering in Surveying Engineering (BESURV)				
First Year				
Fall Semester				
Code	Title	Credits	Prerequisites	Corequisites
ENGL201	Composition and Research Skills	3	ENGL151	
MATH210	Calculus II	3	MATH161-MATH160	
MATH225	Linear Algebra with Applications	3	ENGL051-MATH161	
MENG225	Engineering Drawing & CAD	3		
PHYS220	Physics for Engineers	3	PHYS161-ENGL101-PHYS160	MATH210
Total		15		
Spring Semester				
Code	Title	Credits	Prerequisites	Corequisites
SURV251L	Introduction to Surveying Engineering Lab	1	ENGL051	ENGL101-SURV251
SURV251	Introduction to Surveying Engineering	3	CHEM160-ENGL051	MENG225-MATH210-ENGL101-SURV251L
MATH270	Ordinary Differential Equations	3	MATH210	MATH225
ENGL251	Communication Skills	3	ENGL201	
EENG250	Electric Circuits I	3	PHYS161-PHYS160-MATH161-MATH160-ENGL051	MATH210
MATH220	Calculus III	3	MATH210	
Total		16		
Summer Semester				
Code	Title	Credits	Prerequisites	Corequisites
	General Education Electives	3		
ENGG300	Engineering Economics	3	ENGL201-MATH225-MATH220	
Total		6		
Second Year				
Fall Semester				
Code	Title	Credits	Prerequisites	Corequisites
SURV335	Surveying Drawing & CAD	3	MENG225	
SURV325	Cartography	3		SURV305
SURV315	Geology	3	ENGL201	PHYS220
SURV305L	Surveying Practice I Lab	1		SURV305
MATH310	Probability & Statistics for Scientists & Engineers	3	MATH210-ENGL201	

SURV305	Surveying I	3	SURV251-MATH210	SURV305L
Total		16		

Spring Semester

Code	Title	Credits	Prerequisites	Corequisites
MENG250	Statics	3	MATH161-MATH160-PHYS161-PHYS160-ENGL051	MATH210
SURV385	Computer Aided Drafting for Surveyors	3	SURV335	
SURV375	Topometric Calculus I	3	SURV305	
SURV365	Geodesy I	3	SURV325	
SURV355L	Surveying Practice II Lab	1	SURV305	SURV355
SURV355	Surveying II	3	SURV305	SURV355L
Total		16		

Summer Semester

Code	Title	Credits	Prerequisites	Corequisites
	General Education Electives	3		
ARAB200	Arabic Language and Literature	3		
Total		6		

Third Year

Fall Semester

Code	Title	Credits	Prerequisites	Corequisites
SURV445	Geodesy II	3	SURV365	
SURV435	Theory of Measurement Errors	3	MATH310-SURV355	
SURV425	Topometric Calculus II	3	SURV375	
SURV405	Photogrammetry	3	MATH310-SURV355	MATH220
SURV414	Cadastral Surveying and Construction LAW	3	SURV355	
Total		15		

Spring Semester

Code	Title	Credits	Prerequisites	Corequisites
	Major Elective	3		
SURV580	Geomatics for Civil Works	3	SURV445-SURV355-SURV435	
SURV465	Spatial Geodesy (GPS I)	3	SURV445	
SURV455	Geographic Information Systems I	3	SURV325-SURV405	MATH270
ENGG450	Engineering Ethics and Professional Practice	3	ENGL251	ENGG300
Total		15		

Summer Semester

Code	Title	Credits	Prerequisites	Corequisites
CULT200	Introduction to Arab - Islamic Civilization	3		
ENGG499	Practical Experience	4		
SURV420	Surveying application I	3	SURV355	

Total		10		
Fourth Year				
Fall Semester				
Code	Title	Credits	Prerequisites	Corequisites
SURV530L	GPS II Lab	1		SURV530
	Major Elective	3		
SURV620	Engineering Transportation and Roads Design	3	SURV580	
SURV510	Remote Sensing	3	SURV405	SURV500
SURV500	Geographic Information Systems II	3	SURV455	
SURV530	GPS II	3	SURV465	SURV530L
Total		16		
Spring Semester				
Code	Title	Credits	Prerequisites	Corequisites
SURV590	Map Projection	3	SURV465	
SURV670	Technology Of Construction	3	SURV580-SURV620	
SURV560L	Advanced Digital Photogrammetry Lab	1		SURV560
SURV560	Advanced Digital Photogrammetry	3	SURV405-SURV510	SURV560L
SURV550	Image Processing	3	SURV510	
Total		13		
Summer Semester				
Code	Title	Credits	Prerequisites	Corequisites
SURV595	Capstone Project	6	SURV510-SURV560-SURV550-SURV500-ENGL251	
Total		6		
Major Elective Courses				
Code	Title	Credits	Prerequisites	Corequisites
SURV474	Urban Planning and Land Subdivision	3	SURV414	
SURV477	Land Design and Site Development	3	SURV414	
SURV479	Cadastral Information Surveying	3	SURV414	
SURV512	Hydrographic Surveying	3	SURV455	SURV500
SURV520	Underground & Marine Survey	3	SURV465-SURV375-SURV355	