

Bachelor of Engineering in Surveying Engineering (BESURV)

First Year

Fall Semester

Code	Title	Credits	Prerequisites	Corequisites
MATH210	Calculus II	3	MATH161 - MATH160	
PHYS220	Physics for Engineers	3	PHYS161 - ENGL101 - PHYS160	MATH210
MENG225	Engineering Drawing & CAD	3		
ENGL201	Composition and Research Skills	3	ENGL151	
MATH225	Linear Algebra with Applications	3	MATH160 - ENGL051 - MATH161	
Total		15		

Spring Semester

Code	Title	Credits	Prerequisites	Corequisites
EENG250	Electric Circuits I	3	PHYS161 - PHYS160 - MATH161 - MATH160 - ENGL051	MATH210
MATH220	Calculus III	3	MATH210	
ENGL251	Communication Skills	3	ENGL201	
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	MATH225 - MATH210	
Total		16		

Summer Semester

Code	Title	Credits	Prerequisites	Corequisites
ENGG300	Engineering Economics	3	ENGL201 - MATH225	MATH220
	Elective	3		
Total		6		

Second Year

Fall Semester

Code	Title	Credits	Prerequisites	Corequisites
SURV305L	Surveying Practice I Lab	1		SURV305
SURV335	Surveying Drawing & CAD	3	MENG225	
SURV325	Cartography	3	ENGL201	SURV305
SURV315	Geology	3	ENGL201	PHYS220
SURV305	Surveying I	3	SURV251 - MATH210	SURV305L
MATH310	Probability & Statistics for Scientists & Engineers	3	MATH210 - ENGL201	
Total		16		

Spring Semester

Code	Title	Credits	Prerequisites	Corequisites
MENG250	Statics	3	MATH161 - MATH160 - PHYS161 - PHYS160 - ENGL051	MATH210
SURV355L	Surveying Practice II Lab	1	SURV305	SURV355
SURV355	Surveying II	3	SURV305	SURV355L
SURV365	Geodesy I	3	SURV325	

SURV375	Topometric Calculus I	3	SURV305	
SURV385	Computer Aided Drafting for Surveyors	3	SURV335	
Total		16		
Summer Semester				
Code	Title	Credits	Prerequisites	Corequisites
	Elective	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	
SURV414	Cadastral Surveying and Construction LAW	3	SURV355	
SURV405	Photogrammetry	3	MATH310 - SURV355	MATH220
Total		15		
Spring Semester				
Code	Title	Credits	Prerequisites	Corequisites
	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	ENGG300 - ENGL251	
Total		15		
Summer Semester				
Code	Title	Credits	Prerequisites	Corequisites
SURV420	Surveying application I	3	SURV355	
ENGG499	Practical Experience	4		
Total		7		
Fourth Year				
Fall Semester				
Code	Title	Credits	Prerequisites	Corequisites
	Elective	3		
SURV530L	GPS II Lab	1		SURV530
SURV530	GPS II	3	SURV465	SURV530L
SURV620	Engineering Transportation and Roads Design	3	SURV580	
SURV500	Geographic Information Systems II	3	SURV455	
SURV510	Remote Sensing	3	SURV405	SURV500
Total		16		
Spring Semester				
Code	Title	Credits	Prerequisites	Corequisites
SURV670	Technology Of Construction	3	SURV580 - SURV620	
SURV590	Map Projection	3	SURV465	
SURV560	Advanced Digital Photogrammetry	3	SURV405 - SURV510	SURV560L
SURV550	Image Processing	3	SURV510	
CULT200	Introduction to Arab - Islamic Civilization	3		

SURV560L	Advanced Digital Photogrammetry Lab	1		SURV560
Total		16		
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	
SURV512	Hydrographic Surveying	3	SURV455	SURV500
SURV520	Underground & Marine Survey	3	SURV465 - SURV375 - SURV355	