



University of Southeastern Philippines
College of Engineering

BACHELOR OF SCIENCE in GEODETIC ENGINEERING

CMO 89 series of 2017

Approved per BOR Resolution No. 58 Series of 2018

Revised per BOR Resolution No. 75 Series of 2019

Effective S.Y. 2018-2019

FIRST YEAR											
Course No	Course Title	Credit			Pre/Co-Requisite	Course No	Course Title	Credit			Pre/Co-Requisite
		Lec	Lab	Total Units Credit				Lec	Lab	Total Units Credit	
GE 111	Purposive Communication	3	0	3	None	GEEn 121	General Surveying 2	2	2	4	GEEn 112
GE 112	Mathematics in the Modern World	3	0	3	None	GEEn 122	Intro to the Laws on Private & Public Lands	2	0	2	None
GEN 111	Geodetic Engineering Orientation	1	0	1	None	Nat Sci 2	Physics for Engineers	3	1	4	Co-req: Math 121
GEEn 112	General Surveying 1	2	1	3	None	BES 111	Computer Aided Drafting	1	1	2	BES 101
BES 101	Engineering Drawing and Plans	0	1	1	None	Geo 111	Principles of Geology	3	0	3	None
BES 103	Computer Fundamentals and Programming	1	2	3	None	Math 121	Engineering Calculus 2	3	0	3	MATH 111
Math 111	Engineering Calculus 1	3	0	3	None	PE 122	Fitness Exercise	2	0	2	PE 111
PE 111	Movement Enhancement	2	0	2	None	NSTP 122	National Service Training Program 2	3	0	3	NSTP 111
NSTP 111	National Service Training Program 1	3	0	3	None		Total				23
	Total			22							

OFF SEMESTER 1 (refer below for ***OFF SEMESTER COURSES***)

SECOND YEAR											
Course No	Course Title	Credit			Pre/Co-Requisite	Course No	Course Title	Credit			Pre/Co-Requisite
		Lec	Lab	Total Units Credit				Lec	Lab	Total Units Credit	
GEEn 211	Engineering Surveys	2	2	4	GEEn 121	GE 113	Understanding the Self	3	0	3	None
GEEn 212	Theory of Errors & Adjustments	3	0	3	GEEn 121 & Math 211	GE 217	Science, Technology, and Society	3	0	3	None
GEEn 213	Geometric Geodesy	3	0	3	GEEn 121 & Math 211	GE 215	The Life and Works of Rizal	3	0	3	None
GEEn 214	Cartography & Map Projections	2	2	4	BES 111 & Co-req: GEEn 211	GE 216	Readings in Philippine History	3	0	3	None
GEEn 215	Geodetic Astronomy	2	1	3	Co-req: GEEn 213	GEEn 221	Hydrographic Surveying	2	1	3	GEEn 121 & GEEn 212
Math 212	Engineering Data Analysis	3	0	3	Math 121	GEEn 222	Physical Geodesy	3	0	3	GEEn 213, BES 104, & Geo 111
AGEn 1	Advanced Information & Communications Tech	3	0	3	BES 103	GEEn 223	GE Laws, Obligations and Contracts, & Ethics	2	0	2	GEEn 122
PE 213	Physical Activities Towards Health & Fitness I	2	0	2	PE 122	GEEn 224	Public Land Laws & Laws on Natural Resources	3	0	3	GEEn 122
	Total			25		PE 224	Physical Activities Towards Health & Fitness II	2	0	2	PE 213
							Total				25

OFF SEMESTER 2 (refer below for ***OFF SEMESTER COURSES***)

THIRD YEAR											
Course No	Course Title	Credit			Pre/Co-Requisite	Course No	Course Title	Credit			Pre/Co-Requisite
		Lec	Lab	Total Units Credit				Lec	Lab	Total Units Credit	
EGE 311	General Education Elective 1	3	0	3	None	EGE 312	General Education Elective 2	3	0	3	None
GEN 311	Satellite Geodesy	3	0	3	GEN 222	GEN 321	Geodetic Surveying	2	2	4	GEN 311 & GEN 312
GEN 312	Geodetic Computations & Adjustments	2	2	4	GEN 212 & MATH 212	GEN 322	Photogrammetry	2	2	4	Nat Sci 2, GEN 312, & GEN 214
GEN 313	Land Registration Laws	3	0	3	GEN 122	GEN 323	Property Surveys	3	2	5	GEN 211, GEN 214, & GEN 122
GEN 314	Geographic Information Systems	1	2	3	AGEn 1 & GEN 214	BES 107	Methods of Research	3	0	3	Math 212 & GE 111
GEN 315	Mine Surveying	1	1	2	GEN 112	BES 109	Engineering Management	3	0	3	Math 212
BES 106	Engineering Economics	3	0	3	Math 121	BES 110	Technopreneurship	3	0	3	Co req. BES 109
AGEn 2	Electrical & Electronics Engg. for Geodetic Engrs	3	0	3	Nat Sci 2		Total				25
	Total			24							

OFF SEMESTER 3 (refer below for ***OFF SEMESTER COURSES***)

FOURTH YEAR											
Course No	Course Title	Credit			Pre/Co-Requisite	Course No	Course Title	Credit			Pre/Co-Requisite
		Lec	Lab	Total Units Credit				Lec	Lab	Total Units Credit	
EGE 313	General Education Elective 3	3	0	3	None	GE 114	Ethics	3	0	3	None
GE 218	Art Appreciation	3	0	3	None	GEEn 400	Special Studies in Geodetic Engineering	0	3	3	Continuing
GE 319	Contemporary World	3	0	3	None	GEEn 421	Land Use Planning & Development	2	1	3	GEN 411
GEN 400	Special Studies in Geodetic Engineering	0	3	3	BES 107	GEEn 422	Correlation Course for GE	0	2	2	Last Semester
GEN 411	Remote Sensing	2	2	4	GEN 314 & GEN 322	ELEC	Free Elective	0	1	1	Last Semester
GEN 412	Land Administration & Management	3	0	3	GEN 320 & All Law Subjects	BES 113	Basic Occupational Health & Safety	3	0	3	Last Semester
GEN 413	GEN Elective	3	0	3	3 rd Year Prof. Courses		Total				15
AGEn 3	Intro to Environmental Science & Engineering	3	0	3	Geo 111						
	Total			25							

*** OFF SEMESTER COURSES ***

OFF SEMESTER 1					
Course No	Course Title	Credit			Pre/Co-Requisite
		Lec	Lab	Total Units Credit	
Math 211	Differential Equations	3	0	3	Math 121
BES 104	Engineering Mechanics	3	0	3	Nat Sci 2 & Math 121
	Total			6	

OFF SEMESTER 2					
Course No	Course Title	Credit			Pre/Co-Requisite
		Lec	Lab	Total Units Credit	
GEEn 300	Survey Camp - 120 Hours	0	1	1	GEEn 211 & GEEn 221
	Total			1	

OFF SEMESTER 3					
Course No	Course Title	Credit			Pre/Co-Requisite
		Lec	Lab	Total Units Credit	
GEN 301	GE Immersion/OJT - (320 Hours)	0	2	2	3 rd yr Prof. Courses & GEN 300
	Total			2	

SUGGESTED GE ELECTIVES					
Course No	Course Title	Lec	Lab	Total Units Credit	Pre/Co-Requisite
	People and the Earth's Ecosystem	3	0	3	None
	The Entrepreneurial Mind	3	0	3	None
	Living in the IT Era	3	0	3	None
	Gender and Society	3	0	3	None
	Popular Literature	3	0	3	None
	Foreign Language	3	0	3	None
	Transpersonal Psychology	3	0	3	None

SUGGESTED ELECTIVE COURSES			
SPATIAL DATABASE	MARINE CADASTRE	GEOSPATIAL INFORMATION MGT	
BLDG INFORMATION MODELLING	LASER SCANNING	UNMANNED SURVEY SYSTEM	
3D GIS	LOCATION-BASED SERVICES GEOVISUALIZATION	LAND VALUATION	
DISASTER RISK REDUCTION MGT	HYDROLOGY		

SUMMARY	
Mathematics, Natural / Physical Sciences (Math/Nat So)	16
Basic Engineering Sciences (BES)	24
Allied Courses (AGEn & Geo)	12
Professional Courses (GEN)	88
On the Job Training (320 Hours)	2
General Education Courses (GE, EGE, & LCS)	36
Physical Education (PE)	8
National Service Training Program (NSTP)	6
Institutional Courses (ELEC)	1
Total number of units	193