



University of Southeastern Philippines
College of Engineering

BACHELOR OF SCIENCE MINING ENGINEERING
CMO 99 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	GE 113	Understanding the Self	3	0	3	None
GE 112	Mathematics in the Modern World	3	0	3	None	GE 114	Ethics	3	0	3	None
Math 111	Engineering Calculus 1	3	0	3	None	GE 217	Science, Technology and Society	3	0	3	None
Nat Sci 1	Chemistry for Engineers	3	1	4	None	Math 121	Engineering Calculus 2	3	0	3	Math 111
BES 101	Engineering Drawing and Plans	0	1	1	None	Nat Sci 2	Physics for Engineers	3	1	4	Math 111, co Math 121
Geol 111	Principles of Geology	3	0	3	None	BES 102	Computer-Aided Drafting	0	1	1	BES 101
PE 111	Movement Enhancement	2	0	2	None	Geol 122	Elementary Mineralogy	3	0	3	Geol 111, Nat Sci 1
NSTP 111	National Service Training Program 1	3	0	3	None	PE 122	Fitness Exercise	2	0	2	PE 111
	Total			22		NSTP 122	National Service Training Program 2	3	0	3	NSTP 1
						Total			25		

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	
EGE 311	General Education Elective 1	3	0	3	None	GE 218	Arts Appreciation	3	0	3	None
GE 215	The Life and Works of Rizal	3	0	3	None	EM 221	Surface Mining	3	0	3	EM 211
GE 216	Readings in Philippine History	3	0	3	None	EM 222	Mineral Deposits	3	0	3	Geol 214
Math 212	Engineering Data Analysis	3	0	3	Math 121	Met E 221	Mineral Processing	2	1	3	Geol 122, Met E 211
EM 211	Underground Mining	3	0	3	EM 121	Met E 222	Techniques of Metallurgical Analysis	1	1	2	Met E 211
Met E 211	Principles of Metallurgy	3	0	3	Nat Sci 1	Gen 112	General Surveying 1	2	1	3	Math 111
Geol 214	Structural Geology	2	1	3	Geol 111, Math 211	PE 224	Physical Activities Towards Health & Fitness II	2	0	2	PE 213
PE 213	Physical Activities Towards Health & Fitness I	2	0	2	PE 122						
	Total			23		Total			19		

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	
EM 311	Techniques of Mining Analysis	2	0	2	Math 211, Geol 214, EM 221, EM 222	EGE 313	General Education Elective 3	3	0	3	None
EM 312	Mine Safety	3	0	3	EM 221	EM 322	Mine Ventilation	2	1	3	EM 312, BES 108, EM 311
Gen 315	Mine Surveying	2	1	3	Gen 112	EM 323	Basic Mechanical Equipment	2	0	2	Nat Sci 2
BES 104	Engineering Mechanics	3	0	3	Math 121, Nat Sci 2	EM TS1	Track Specialization 1	3	0	3	EM 311
BES 108	Fluid Mechanics	3	0	3	Co req. BES 104	BES 105	Mechanics of Deformable Bodies	4	0	4	BES 104, BES 108
BES 112	Environmental Science and Engineering	3	0	3	Nat Sci 1	BES 106	Engineering Economics	3	0	3	Math 121
GE 319	Contemporary World	3	0	3	None	BES 107	Methods of Research	3	0	3	Math 212, GE 111
EGE 312	General Education Elective 2	3	0	3	None	AEM 1	Basic Electrical Engineering	3	0	3	Nat Sci 2
	Total			23		Total			24		

OFF SEMESTER 2 (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		
EM 400	Mine Research and Study	0	3	3	ALL PRIOR PROF COURSES COMPLETED	EM 400	Mine Research and Study	0	3	3	ALL PRIOR PROF COURSES COMPLETED	
EM 411	Mine Design	2	1	3		EM 421	Mining Seminar	0	1	1		
EM 412	Mine Environmental Management	3	0	3		EM 422	Correlation Course	0	1	1		
EM 413	Mining and Environmental Laws and Ethics	3	0	3		EM 423	Mine Management	3	0	3		
EM TS2	Track Specialization 2	3	0	3		EM 424	Mine Economics	3	0	3		
EM 414	Rock Mechanics	2	1	3		BES 105, EM 312, Geol 214	EM TS3	Track Specialization 3	3	0		3
BES 109	Engineering Management	3	0	3		Math 212	EL 421	Energy Resources	3	0		3
BES 110	Technopreneurship	3	0	3	Co req. BES 109	EGE 421	Free Elective	3	0	3	GE 319, GE 111	
	Total			24		Total			20			

*** 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
Geol 112	Petrology	2	1	3	Geol 122
EM 121	Principles of Mining	3	0	3	Geol 122
	Total			9	

OFF SEMESTER 2					
Course No.	Course Title	Credit			Pre/Co-Requisite
		Lec	Lab	Total Units Credit	
EM 326	Mine and Plant Practice (320 Hrs)	0	2	2	ALL PRIOR COURSES COMPLETED
	Total			2	

Suggested Track Specialization Courses

- | | |
|-----------------------------------|---|
| EM 425 - Mine Feasibility Studies | EM 429 - Computer Application in Mining Engineering |
| EM 426 - Drilling and Blasting | EM 430 - Tunneling |
| EM 427 - Coal Mining | EM 431 - Best Practices |
| EM 428 - Mine Project Development | EM 432 - Contract Mining |

SUGGESTED GE ELECTIVES

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
Foreign Language	3	0	3	None
Transpersonal Psychology	3	0	3	None
Popular Literature	3	0	3	None

Summary	
Mathematics, Natural / Physical Sciences	20
Basic Engineering Sciences	24
Allied Courses	32
Professional Courses – Common	59
On the Job Training (320 Hours)	2
Correlation Course	1
General Education Courses	36
Mandatory Courses	3
Physical Education	8
National Service Training Program	6
Institutional Courses	-
Total number of units	191