

**SILLIMAN UNIVERSITY**  
**INSTITUTE OF ENVIRONMENTAL AND MARINE SCIENCES**  
**BACHELOR OF SCIENCE IN MARINE BIOLOGY**  
(2018 CURRICULUM)

**FIRST YEAR**

**First Semester**

Subj Code	Course Title	Units	Lec	Lab	PreReq
CHS 1 (2018)	Reading & Interpreting the Hebrew Scriptures	3	3	0	
GE 3 (2018)	The Contemporary World	3	3	0	
GE 5 (2018)	Purposive Communication	3	3	0	
GE 8 (2018)	Ethics	3	3	0	
MB 11 (2018)	Ecological Concepts	3	2	1	SHS ELS
MB 13 (2018)	Marine Invertebrates	4	2	2	SHS Bio2
PE 1 (2018)	Physical Fitness & Swimming	2	2	0	
NSTP 1 (2018)	National Service Training Program	(3)	3	0	
PEP 1 (2018)	Personality Enhancement Program				
	TOTAL	21(24)	21	3	
	Contact hours/week	30	21	9	

**Second Semester**

Subj Code	Course Title	Units	Lec	Lab	PreReq
CHS 2 (2018)	Reading & Interpreting the Christian Scriptures	3	3	0	CHS 1
GE 1 (2018)	Understanding the Self	3	3	0	
GE 2 (2018)	Readings in Philippine History	3	3	0	
Math 18 (2018)	Calculus	4	4	0	SHS Math2
MB 12 (2018)	Marine Botany	4	2	2	SHS Bio2
MB 14 (2018)	General Physiology	3	2	1	SHS Bio2
PE 2 (2018)	Physical Education	2	2	0	PE 1
NSTP 2 (2018)	National Service Training Program	(3)	(3)	0	NSTP 1
PEP 2 (2018)	Personality Enhancement Program				PEP 1
	TOTAL	22(25)	22	3	
	Contact hours/week	31	22	9	

**SECOND YEAR**

**First Semester**

Subj Code	Course Title	Units	Lec	Lab	PreReq
GE 4 (2018)	Mathematics in the Modern World	3	3	0	
GE 6 (2018)	Art Appreciation	3	3	0	
MB 21 (2018)	Analytical Chemistry	3	2	1	SHS Chem2
MB 23 (2018)	Scientific Writing	3	2	1	SHS Research
MB 25 (2018)	Marine Ecology	4	2	2	MB 11, 12, 13
MB 27 (2018)	Reproductive & Developmental Biology	3	2	1	MB 14
PE 3 (2018)	Physical Education	2	2	0	PE 2
	TOTAL	21	16	5	
	Contact hours/week	31	16	15	

**Second Semester**

Subj Code	Course Title	Units	Lec	Lab	PreReq
GE 7 (2019)	Science, Technology & Society	3	3	0	
GE 9 (2018)	The Life and Works of Jose Rizal	3	3	0	
MB 22 (2018)	Organic Chemistry	4	2	2	MB 21
MB 24 (2018)	Inferential Statistics & Biometry	3	2	1	SHS Stat
MB 26 (2018)	Chemical & Biological Oceanography	4	2	2	MB21 & MB25
MB 28 (2018)	Cell & Molecular Biology	4	3	1	MB 27
PE 4 (2018)	Physical Education	2	2	0	PE 3
	TOTAL	23	17	6	
	Contact hours/week	35	17	18	

### THIRD YEAR

First Semester					
Subj Code	Course Title	Units	Lec	Lab	PreReq
GE 10 (2018)	Whole Person Education	3	3	0	
MB 31 (2018)	Mechanics, Electromagnetism & Gravitational Theory	3	2	1	SHS Physics
MB 33 (2018)	Biochemistry	3	2	1	MB 22
MB 35 (2018)	Climate Change and Inter-connectivity	3	2	1	MB 25
MB 37 (2018)	Coral Reefs	3	2	1	MB 25
MB 39 (2018)	Introduction to Genetics	4	3	1	MB 27, MB 28
	TOTAL	19	14	5	
	Contact hours/week	29	14	15	

NOTE for Summer Term:

Subjects with "R" can be enrolled in any semester

Subjects with "S" are only offered in summer term

(unless for special cases).

MB 43R\*(Data Gathering and Analysis) are for students

who passed MB 38 (2018) and are gathering data

### Second Semester

Subj Code	Course Title	Units	Lec	Lab	PreReq
GE 11 (2018)	Applied Software in Environmental and Marine Sciences (Free Elective)	3	3	0	
MB 32 (2018)	Waves, Optics and Thermodynamics	3	2	1	MB 31
MB 34 (2018)	Geological & Physical Oceanography	4	2	2	Math 18 & MB 31
MB 36 (2018)	Marine Microbiology & Fungi	4	2	2	MB 12
MB 38 (2018)	Elements of Research	3	3	0	MB 24
MB 40 (2018)	Problem Development, Sampling Design & Method	2	2	0	MB 37
	TOTAL	19	14	5	
	Contact hours/week	29	14	15	

### Summer

Subj Code	Course Title	Units	Lec	Lab	PreReq
MB 41S (2018)	Practicum (144 hr)	3	0	3	MB 38
MB 42R (2018)	Water Safety	3	1	2	
MB 43R (2018)	Data Gathering & Analysis*	2	0	2	MB 38
	TOTAL	6	1	5	
	or	8	1	7	

### FOURTH YEAR

First Semester					
Subj Code	Course Title	Units	Lec	Lab	PreReq
MB 51 (2018)	Systematics, Biodiversity & Evolution	4	2	2	MB 12, MB 36
MB 53 (2018)	Marine Vertebrates	4	2	2	MB 27
MB 55 (2018)	Integrated Coastal/Marine Resource Management	4	2	2	MB 26, MB 34
MBElec1 (2018)	Marine Biology Elective-1	3	2	1	MB 26, MB 34
MB 43R (2018)	Data Gathering & Analysis**	2**	0	2	MB 38
	**If not enrolled in previous summer term				
	TOTAL	15/17**	8	9	
	Contact hours/week	35	8	27	

### Second Semester

Subj Code	Course Title	Units	Lec	Lab	PreReq
GE 12/CHS 3 (2018)	Christianity and Peace-Building	3	3	0	CHS 2
MBElec2 (2018)	Marine Biology Elective -2	3	2	1	MB 26, 34
MBElec3 (2018)	Marine Biology Elective -3	3	2	1	MB 26, 34
MBElec4 (2018)	Marine Biology Elective -4	3	2	1	MB 26, 34
MBElec5 (2018)	Marine Biology Elective -5	3	2	1	MB 26, 34
MB 99 (2018)	Thesis Write-up & Presentation of Results	2	2	0	MB 43R
	TOTAL	17	13	4	
	Contact hours/week	25	13	12	

\* May be replaced by GE electives under Mathematics, Science and Technology of CM0 20 s2013

1 **Lecture unit** = 1 contact hour; 1 **Laboratory unit** = 3 contact hours

## GENERAL EDUCATION SUBJECTS (Includes University GE Requirements CHS)

GE 1. Understanding the Self

GE 2. Readings in Philippine History

GE 3. The Contemporary World

GE 4. Mathematics in the Modern World

GE 5. Purposive Communication

GE 6. Art Appreciation

GE 7. Science, Technology & Society

GE 8. Ethics

GE 9. The Life and Works of Jose Rizal

GE 10. Whole Person Education

GE 11. Applied Software in Environmental and Marine Sciences

GE 12/CHS 3. Christianity and Peace-Building

CHS 1 - Reading & Interpreting the Hebrew Scriptures

CHS 2 - Reading & Interpreting the Christian Scriptures

## MARINE BIOLOGY ELECTIVES

MB 60. Ichthyology

MB 61. Fishery Management

MB 62. Mariculture/Silviculture

MB 63. Marine Pollution

MB 64. Pathology of Marine Organisms

MB 65. Marine Birds

MB 66. Marine Mammals

MB 67. Sediment Ecology

MB 68. Marine Plankton

MB 69. Phycology

MB 70. Marine Protected Areas

MB 71. Scientific Diving

MB 72. Remote Sensing and GIS

MB 73. Marine Reptiles

MB 74. Marine Natural Products

MB 75. Marine Biogeography and Mapping

MB 76. Ecosystem Remediation and Restoration

MB 77. Insects & the Marine Ecosystem

MB 78. Mangrove Forests

MB 79. Special Topics in Marine Biology