



# B. Sc. Marine Biology Programme Programme Structure and Organization



## Year One

Semester 1					
Code	Course Title	Units			Prerequisites
Mandatory	Student must do the following courses	Lec.	Prac.	Credits	
MATH 110	Mathematics	3	-	3	-
MP 101	Essentials of Marine Physics	2	3	3	-
ELIG 101	Intensive English (1)	15	-	3	-
ARAB 101	Arabic Language	3	-	3	-
MG 101	Essentials of Marine Geology	2	3	3	-
<b>Total</b>				<b>15</b>	

Semester 2					
Code	Course Title	Units			Prerequisites
Mandatory	Student must do the following courses	Lec.	Prac.	Credits	
MS 101	Academic Skills in Marine Sciences	3	-	3	-
MC 101	Essentials of Marine Chemistry	2	3	3	-
MB 101	Essentials of Marine Biology	2	3	3	-
ELIG 102	Intensive English (2)	15	-	3	ELIG 101
ARAB 201	Arabic Language	3	-	3	ARAB 101
<b>Total</b>				<b>15</b>	

## Year Two

Semester 3					
Code	Course Title	Units			Prerequisites
Mandatory	Student must do the following courses	Lec.	Prac.	Credits	
ISLS 101	Islamic Culture (1)	2	-	2	-
MSC 201	An Introduction to Marine Pollution	2	-	2	-
MSC 202	Dynamics of Marine Ecosystems	2	-	2	-
MS 202	Marine Ecology	3	-	3	MB 101 + MG 101 + MP 101 + MC 101
CPIT 110	Problem solving and programing	3	-	3	-
MB 210	Marine Biology	2	3	3	MB 101
	Free Course	-	-	2	-
<b>Total</b>				<b>17</b>	

Semester 4					
Code	Course Title	Units			Prerequisites
Mandatory	Student must do the following courses	Lec.	Prac.	Credits	
ISLS 201	Islamic Culture (2)	2	-	2	ISLS 101
MSC 203	Statistical techniques for Oceanographers	2	3	3	MATH 110
MSC 204	Oceanographic Data Processing	2	3	3	-
MSC 205	An Introduction to Remote Sensing in Marine Environment	2	-	2	-
MSC 206	An Introduction to Integrated Coastal Zone Management	2	-	2	-
MSC 207	Marine Resources	2	3	3	-
	Free Course	-	-	2	-
<b>Total</b>				<b>17</b>	

## Year Three

Semester 5					
Code	Course Title	Units			Prerequisites
Mandatory	Student must do the following courses	Lec.	Prac.	Credits	
ISLS 301	Islamic Culture (3)	2	-	2	ISLS 201
MSC 307	Environmental impact assessment	2	3	3	MSC 206
MB 310	Marine botany	2	3	3	MB 101
MB 311	Marine Invertebrates	2	3	3	MB 101
MB 312	Principles of Aquaculture	2	-	2	MB 101
MB 313	Principles of swimming and diving	1	3	2	-
<b>Total</b>				<b>15</b>	

Semester 6					
Code	Course Title	Units			Prerequisites
Mandatory	Student must do the following courses	Lec.	Prac.	Credits	
ISLS 401	Islamic Culture (4)	2	-	2	ISLS 301
MSC 308	Cooperative and Field Training	1	3	2	MSC 207 + MSC 307
MB 314	Ichthyology	2	3	3	MB 101
MB 315	Marine Microbiology	1	3	2	MB 101
MB 316	Coral Reef	1	3	2	MB 311
MB 317	Physiology of Marine Organisms	2	3	3	MB 310 + MB 314
MB 318	Marine Plankton	2	3	3	MB 101 + MB 311
	Free Course	-	-	1	-
<b>Total</b>				<b>18</b>	

## Year Four (3 Routes)

### • Marine Fisheries Route

Semester 7					
Code	Course Title	Units			Prerequisites
Mandatory	Student must do the following courses	Lec.	Prac.	Credits	
MB 470	Biostatistics and Experimental Design	2	3	3	MSC 203 + MATH 110
MB 471	Introduction to Marine Fisheries	2	-	2	MB 101 + MB 314
MB 472	Larval Development of Marine Organisms	2	3	3	MB 311 + MB 314
MB 473	Fishing Methods and Gears	2	-	2	MB 314
MB 474	Fisheries systematics	1	3	2	-
MB 475	Special topics in Marine Biology	2	-	2	-
Elective	Student may select from the elective courses	-	-	4	-
<b>Total</b>				<b>18</b>	

Semester 8					
Code	Course Title	Units			Prerequisites
Mandatory	Student must do the following courses	Lec.	Prac.	Credits	
MB 499	Marine Research Project	4	-	4	MB 475
MB 476	Genetics Application in Fisheries	2	-	2	-
MB 477	Fish population Dynamics	2	-	2	MB 314 + MB 471
MB 478	Fisheries economics and statistics	2	-	2	-
MB 479	Fisheries Management	2	-	2	-
Elective	Students may select from the elective courses	-	-	5	-
<b>Total</b>				<b>17</b>	



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### • Aquaculture Route

Semester 7					
Code	Course Title	Units			Prerequisites
		Lec.	Prac.	Credits	
Mandatory	Student must do the following courses				
MB 470	Biostatistics and Experimental Design	2	3	3	MSC 203
MB 475	Special topics in Marine Biology	2	-	2	-
MB 472	Larval Development of Marine Organisms	2	3	3	MB 311 + MB 314
MB 480	Fish Culture	2	-	2	MB 311 + MB 312
MB 481	Fish Nutrition	2	-	2	MB 312 + MB 314
MB 482	Hatchery and Nursery	2	-	2	MB 312 + MB 314
Elective	Student may select from the elective courses	-	-	4	-
<b>Total</b>					<b>18</b>

Semester 8					
Code	Course Title	Units			Prerequisites
		Lec.	Prac.	Credits	
Mandatory	Student must do the following courses				
MB 499	Marine Research Project	4	-	4	MB 475
MB 483	Fish Diseases	2	-	2	MB 314
MB 484	Water Quality Management	2	-	2	-
MB 485	Crustacean and Mollusc Culture	2	-	2	MB 311 + MB 312
MB 486	Small Aquarium Management	1	3	2	MB 312 + MB 314
Elective	Student may select from the elective courses	-	-	5	-
<b>Total</b>					<b>17</b>

### • Marine Ecology Route

Semester 7					
Code	Course Title	Units			Prerequisites
		Lec.	Prac.	Credits	
Mandatory	Student must do the following courses				
MB 470	Biostatistics and Experimental Design	2	3	3	MSC 203 + MATH 110
MB 490	Marine Benthos	1	3	2	MS 202 + MB 101 + MB 311
MB 491	Marine Mammals and Turtles	2	-	2	-
MB 492	Ecology of the Red Sea & Arabian Gulf	2	-	2	MB 316
MB 475	Special topics in Marine Biology	2	-	2	-
MB 493	Pollution Effects on Marine Organisms	2	3	3	MB 311 + MB 314
Elective	Student may select from the elective courses	-	-	4	-
<b>Total</b>					<b>18</b>

Semester 8					
Code	Course Title	Units			Prerequisites
		Lec.	Prac.	Credits	
Mandatory	Student must do the following courses				
MB 499	Marine Research Project	4	-	4	MB 475
MP 365	Integrated Coastal Zone Management	2	-	2	MSC 206 + MSC 307
MB 494	Marine Primary Producers	2	-	2	MB 470
MB 495	Marine Biodiversity	2	-	2	MB 311 + MB 314 + MB 316
MB 496	Deep sea biology	2	-	2	MS 202 + MB 210
Elective	Students may select from the elective courses	-	-	5	-
<b>Total</b>					<b>17</b>



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### Elective Courses

Code	Course Title	Units			Prerequisites
		Lec.	Prac.	Credits	
<b>Elective</b>	<b>Student may select 9 credits from 39 credits</b>				
MB 483	Fish Diseases	2	-	2	MB 314
MB 488	Aquaculture Lab 1	1	3	2	MB 311+ MB 312 + MB 314
MB 489	Aquaculture Lab 2	1	3	2	MB 312 + MB 314 + MB 488
MB 410	Marine Plant Culture	2	-	2	MB 310 + MB 489
MB 411	Marine Ecology Lab	1	3	2	MB 311+ MB 314
MB 491	Marine Mammals and Turtles	2	-	2	MB 314
MB 413	Fish Processing	2	-	2	MB 312+ MB 314 + MB 462
MB486	Small Aquarium Management	1	3	2	MB 312 + MB 314
MB 415	Genetics Application in Fisheries	2	-	2	-
MB 416	Marine Biotechnology	2	-	2	MB 312 + MB 314
MB 417	Mangrove Ecosystem	2	-	2	MB 310 + MB 470
MB 418	Pollution Effects on Marine Organisms	2	3	3	MB 311 + MB 314
MB 419	Marine Animal Behaviors	2	-	2	MB 311 + MB 314
MB 497	Computer application in fisheries	1	3	2	-
MB 498	Fish Health management	2	-	2	-
MC 443	Marine Biochemistry	2	3	3	-
MS 201	Oceanography	3	-	3	-
MP 365	Integrated Coastal Zone Management	2	-	2	-
<b>Total</b>				<b>39</b>	