

## **B. Sc. Marine Chemistry Programme**Programme Structure and Organization



### Year One

Semester 1							
Code	Course Title		Uni	ts	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	-		
	Total	15					

Semester 2						
Code	Course Title	Units Prerequisi				
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	
	Total	15				

### Year Two

Semester 3							
Code	Course Title		Unit	ts	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		
CPIT110	Problem solving and programing	3		3	-		
CHEM110	General Chemistry	3		3	-		
	Free Course	-	-	2	-		
	Total			17			

Semester 4						
Code	Course Title		Uni	ts	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	-	
	Total	17				

### Year Three

Semester 5							
Code	Course Title		Uni	Prerequisites			
Mandatory	Student must do the following courses	Lec.	Prac.	Credits			
ISLS 301	Islamic Culture (3)	2	1	2	ISLS 201		
MSC 307	Environmental impact assessment	2	3	3	MSC 206		
CHEM 202	General Chemistry 2	3	3	4	CHEM 110		
CHEM 231	Organic Chemistry	3	3	4	CHEM 110		
MC 340	Marine Bio-organic Chemistry	1	-	1	CHEM 110		
MC 341	Marine Chemistry	2	-	2	CHEM 110		
	Free Course	-	-	1	-		
	Total	17					

Semester 6						
Code	Course Title		Uni	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	
CHEM 211	Volumetric and Gravimetric Analysis	3	3	4	CHEM 110	
MC 342	Marine pollution	2	3	3	MSC 201	
MC 343	Marine Organic Chemistry	2	3	3	CHEM 231+ MC 340	
Elective	Student may select from the elective courses	-	-	3	-	
	Total					

### Year Four

Semester 7							
Code	Course Title		Uni	ts	Prerequisites		
Mandatory	Student must do the following courses	Lec.	Prac.	Credits			
MC 440	Marine Instrumental and Analytical Chemistry	2	3	3	CHEM 211		
MC 441	Marine Geochemistry	2	-	2	MC 343		
MC 442	Cycle of Elements in Sea Water	2	3	3	MC 101+ MC 341		
MC 443	Marine Biochemistry	2	3	3	MC 343 + MC 340		
MC 444	Chemistry of Marine Natural Products	2	3	3	CHEM 231+ MC 343		
MC 445	Oceanography of Regional Seas	1	-	1	-		
Elective	Student may select from the elective courses	-	-	3	-		
	Total	18					

Semester 8						
Code	Course Title		Uni	ts	Prerequisites	
Mandatory	Student must do the following courses	Lec.	Prac.	Credits		
MC 446	Water quality	1	3	2	MSC 201	
MC 447	Application of Electrochemistry in Marine Sciences	1	3	2	MC 341	
MC 448	Chemistry of Coastal Water and limnology	2	3	3	MC 442 + MC 441	
MC 449	Stable isotopes Geochemistry	2	-	2	CHEM 202 + MC 441	
MC 499	Research Project	4	-	4	-	
Elective	Student may select from the elective courses	-	-	3	-	
Total						



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#### **Elective Courses**

Code	Course Title		Units		Prerequisites
Elective	Student may select 9 credits from 16 credits	Lec.	Prac.	Credits	
MS 201	Oceanography	3	-	3	-
MC 450	Chemistry of Marine Biotechnology	2	-	2	MC 443
MC 451	Applications of Nanotechnology in Marine Chemistry	2	-	2	MSC 201
MC 452	Trace Metals in Sea water	2	3	3	MC 341
MB 313	Principles of Swimming and Diving	1	3	2	-
MP 365	Integrated Coastal Zone Management	2	-	2	-
MB 312	Principles of Aquaculture	2	-	2	MB 101
	Total				