



# INTERNATIONAL MARITIME UNIVERSITY OF PANAMA

MARINE SCIENCES FACULTY

Study Plan (2011)

## *BACHELOR DEGREE IN MARINE BIOLOGY*

### FIRST YEAR

No.	CODE	SUMMER	FIELD	T	P	Cr
1	474	MARINE ZOOLOGY	Speciality	2	2	3
2	167	MARITIME GEOGRAPHY OF PANAMA AND THE WORLD	Scientific-Humanistic	2	0	2
3	274	BASIC ADMINISTRATION	Administrative	2	2	3
4	421	ETHICS AND MORAL	Scientific-Humanistic	2	0	2
<b>TOTAL</b>				<b>8</b>	<b>4</b>	<b>10</b>

No.	CODE	I SEMESTER	FIELD	T	P	Cr
1	166	MATHEMATICS I	Scientific-Humanistic	3	2	4
2	418	PHYSICS I	Scientific-Humanistic	3	2	4
3	417	CHEMISTRY I	Scientific-Humanistic	2	2	3
4	469	GENERAL BIOLOGY I	Speciality	2	2	3
5	255	MARINE FACILITIES	Speciality	2	2	3
6	111	ORAL AND WRITTEN COMMUNICATION	Scientific-Humanistic	2	0	2
<b>TOTAL</b>				<b>14</b>	<b>10</b>	<b>19</b>

No.	CODE	II SEMESTER	FIELD	T	P	Cr
1	112	MATHEMATICS II	Scientific-Humanistic	3	2	4
2	322	PHYSICS II	Scientific-Humanistic	3	2	4
3	419	CHEMISTRY II	Scientific-Humanistic	2	2	3
4	472	GENERAL BIOLOGY II	Speciality	2	2	3
5	246	COASTAL AND MARINE RESOURCES	Speciality	2	2	3
6	422	APPLIED COMPUTING	Scientific-Humanistic	1	2	2
<b>TOTAL</b>				<b>13</b>	<b>12</b>	<b>19</b>

### SECOND YEAR

No.	CODE	SUMMER	FIELD	T	P	Cr
1	253	FIELD BIOLOGY	Speciality	2	4	4

2	423	OPTIONAL COURSE		2	2	3
3	78	GENERAL ACCOUNTING	Administrative	2	2	3
<b>TOTAL</b>				<b>6</b>	<b>8</b>	<b>10</b>

No.	CODE	I SEMESTER	FIELD	T	P	Cr
1	130	MATHEMATICS III	Scientific-Humanistic	3	2	4
2	475	BIOCHEMISTRY	Speciality	3	2	4
3	243	MARINE BIOLOGY	Speciality	2	2	3
4	247	MARINE INVERTEBRATES	Speciality	2	2	3
5	473	ENVIRONMENTAL ECONOMY	Speciality	3	0	3
6	423	OPTIONAL COURSE		2	2	3
<b>TOTAL</b>				<b>15</b>	<b>10</b>	<b>20</b>

No.	CODE	II SEMESTER	FIELD	T	P	Cr
1	32	BASIC STATICS	Scientific-Humanistic	2	2	3
2	470	MARINE ECOLOGY	Speciality	3	2	4
3	259	MARINE RESOURCES ECONOMY	Speciality	2	2	3
4	573	CELULAR BIOLOGY	Speciality	2	2	3
5	574	COMPARATIVE ANATOMY	Speciality	2	2	3
6	423	OPTIONAL COURSE		2	2	3
<b>TOTAL</b>				<b>13</b>	<b>12</b>	<b>19</b>

### THIRD YEAR

No.	CODE	SUMMER	FIELD	T	P	Cr
1	260	MARINE BIOLOGY SEMINAR	Speciality	1	2	2
2	257	AQUACULTURE	Speciality	2	2	3
3	261	COASTAL PLANNING AND MANAGEMENT	Speciality	2	2	3
4	423	OPTIONAL COURSE		2	2	3
<b>TOTAL</b>				<b>7</b>	<b>8</b>	<b>11</b>

No.	COE	I SEMESTER	FIELD	T	P	Cr
1	249	QUANTITATIVE BIOLOGY	Speciality	2	2	3
2	265	GENERAL OCEANOGRAPHY	Speciality	3	2	4
3	252	ICHTIOLOGY	Speciality	2	2	3
4	254	MARINE GEOLOGY	Speciality	2	2	3
5	248	CONSERVATION BIOLOGY	Speciality	2	2	3
6	15	RESEARCH METHODOLOGY	Scientific-Humanistic	2	2	3
<b>TOTAL</b>				<b>13</b>	<b>12</b>	<b>19</b>

No.	CODIGO	II SEMESTER	FIELD	T	P	Cr
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1	258	OCEANOGRAPHY METHODS AND DATA ANALYSIS	Speciality	2	2	3
2	477	PHYSICAL AND CHEMICAL OCEANOGRAPHY	Speciality	3	2	4
3	263	FISHERIES BIOLOGIST	Speciality	2	2	3
4	478	MARINE ENVIRONMENTAL MANAGEMENT	Speciality	2	2	3
5	479	COASTAL DYNAMICS	Speciality	2	2	3
6	480	FORMULATION AND EVALUATION OF MARINE PROJECTS	Speciality	2	2	3
<b>TOTAL</b>				<b>13</b>	<b>12</b>	<b>19</b>

#### FOURTH YEAR

No.	CODIGO	I SEMESTER	FIELD	T	P	Cr
1	481	BIOLOGICAL AND GEOLOGICAL OCEANOGRAPHY	Speciality	3	2	4
2	270	FISHERIES MANAGEMENT	Speciality	2	2	3
3	268	INTEGRATED COASTAL MANAGEMENT	Speciality	2	2	3
4	482	COASTAL INFRASTRUCTURE	Speciality	2	2	3
5	269	MARINE POLLUTION	Speciality	2	2	3
6	483	COASTAL AND MARINE ENVIRONMENTAL IMPACT	Speciality	2	2	3
<b>TOTAL</b>				<b>13</b>	<b>12</b>	<b>19</b>

No.	CODE	II SEMESTER	FIELD	T	P	Cr
1	484	TECHNICAL ENGLISH (MARINE BIOLOGY)	Speciality	3	2	4
2	423	OPTIONAL COURSE		2	2	3
3	195	GRADUATION COURSE	Speciality	6	12	12
<b>TOTAL</b>				<b>11</b>	<b>16</b>	<b>19</b>

<b>TOTAL STUDY PLAN</b>				<b>126</b>	<b>116</b>	<b>184</b>
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<b>PREREQUIRIMENTS</b>
246
N/T
N/T
N/T

<b>PREREQUIRIMENTS</b>
N/T
N/T
N/T
N/T
N/T
N/T

<b>PREREQUIRIMENTS</b>
166
418
417
469
471
N/T

<b>PREREQUIRIMENTS</b>
470

N/T
N/T

<b>PREREQUIRIMENTS</b>
112
419
246
474
N/T
N/T

<b>PREREQUIRIMENTS</b>
130
243
473
472
474
N/T

<b>PREREQUIRIMENTS</b>
15
263
480
N/T

<b>PREREQUIRIMENTS</b>
32 - 253
475 - 243
243
470
253
N/T

<b>PREREQUIRIMENTS</b>
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249
265
252
470
254
248

<b>PREREQUIRIMENTS</b>
258
257
261
479
477
478

<b>PREREQUIRIMENTS</b>
N/T
N/T
684