

# List of Courses for the Program

(Semester wise)

## Semester 1

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
<b>THEORY</b>								
1	UBLEC01	Technical English-I	HS	2	2	0	0	2
2	UBMTC01	Engineering Mathematics-I	BS	4	3	1	0	4
3	UCPHC01	Engineering Physics-I	BS	3	3	0	0	3
4	UBCHC01	Engineering Chemistry	BS	3	3	0	0	3
5	UCITC01	Introduction to Programming in C and C++	ES	3	3	0	0	3
<b>PRACTICALS</b>								
1.	UBMCCPA	Engineering Graphics	ES	4	0	2	2	3
2.	UCPHCPA	Engineering Physics Laboratory	BS	2	0	0	2	1
3.	UBCHCPA	Engineering Chemistry Laboratory	BS	2	0	0	2	1
4.	UBITCPA	Programming in C and C++ Laboratory	ES	2	0	0	2	1
5.	UCLECPB	Spoken English-I	EEC	3	0	0	3	2
		<b>TOTAL</b>		<b>28</b>	<b>14</b>	<b>3</b>	<b>11</b>	<b>23</b>

L – Lecture  
T – Tutorial  
P – Practical / Laboratory  
C - Credit

HS – Humanities Science  
BS – Basic Science  
ES – Engineering Science  
PC – Professional Core  
PE – Professional Elective  
EEC – Employment Enhancement Course

**Semester: II**

S. No	Course Code	Course Title	Cate-gory	Contact Hours	L	T	P	C
<b>THEORY</b>								
1.	UBLEC02	Technical English-II	HS	2	2	0	0	2
2.	UBMTC02	Engineering Mathematics-II	BS	4	3	1	0	4
3.	UCPHC02	Engineering Physics-II	BS	3	3	0	0	3
4.	UBEEC01	Basics of Electrical & Electronic Engineering	ES	3	3	0	0	3
5.	UBBTC01	Environment Science	HS	2	2	0	0	2
6.	UBMCC03	Engineering Mechanics	ES	4	3	1	0	4
7.	UBMCC11	Thermodynamics	ES	3	3	0	0	3
<b>PRACTICALS</b>								
8.	UBEECPA	Basics of Electrical & Electronics Practical	ES	2	0	0	2	1
9.	UBWSCPA	Engineering Practices Laboratory	BS	4	0	0	4	2
10.	UCLECPC	Spoken English - II	EEC	3	0	0	3	2
		<b>TOTAL</b>		<b>30</b>	<b>19</b>	<b>2</b>	<b>9</b>	<b>26</b>

**Semester: III**

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
<b>THEORY</b>								
1.	UBMTC03	Engineering Mathematics III	BS	4	3	1	0	4
2.	UBHE301	Materials for Marine Environment	PC	3	3	0	0	3
3.	UBHE302	Mechanics of Fluid	ES	3	3	0	0	3
4.	UBHE303	Introduction to Coastal & Offshore Technology	PC	3	3	0	0	3
5.	UBHE304	Wave Hydrodynamics	PC	4	4	0	0	4
6.	UBHE305	Mechanics of Solids	PC	4	4	0	0	4
<b>PRACTICALS</b>								
7.	UBHE3PA	Mechanics of Fluids Laboratory	PC	2	0	0	2	1
8.	UBHE3PB	Mechanics of Solid Laboratory	PC	2	0	0	2	1
9.	UCLECPD	Spoken English -III	EEC	3	0	0	3	2
		<b>TOTAL</b>		<b>28</b>	<b>20</b>	<b>1</b>	<b>7</b>	<b>25</b>

**Semester: IV**

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
<b>THEORY</b>								
1.	UBHE401	Ocean Data Analysis	BS	4	4	0	0	4
2.	UBHE402	Oceanography	PC	4	4	0	0	4
3.	UBHE403	Basics of Dredging Technology	PC	3	3	0	0	3
4.	UBHE404	Theory of Coastal Surveying – I	PC	4	4	0	0	4
5.	UBHE405	Applied Coastal Hydraulics & Hydraulic Machinery	PC	4	4	0	0	4
<b>PRACTICALS</b>								
6.	UBHE4PA	Coastal Survey Laboratory – I	PC	2	0	0	2	1
7.	UBHE4PB	Coastal Modeling Laboratory - I	PC	2	0	0	2	1
8.	UBHE4PC	Harbour – Computer Aided Design	PC	2	0	0	2	1
9.	UCLECPE	Spoken English -IV	EEC	3	0	0	3	2
		<b>TOTAL</b>		<b>28</b>	<b>19</b>	<b>0</b>	<b>9</b>	<b>24</b>

**Semester: V**

S. No	Course Code	Course Title	Cate-gory	Contact Hours	L	T	P	C
<b>THEORY</b>								
1.	UBHE501	Design of Coastal Structures	PC	4	4	0	0	4
2.	UBHE502	Marine Geotechnical Engineering	PC	4	4	0	0	4
3.	UBHE503	Theory of Structures	PC	4	4	0	0	4
4.	UBHE504	Design of RC Structures	PC	4	4	0	0	4
5.		Core Elective Course – I	PE	3	3	0	0	3
6.		Open Elective Course – I	OE	2	2	0	0	2
<b>PRACTICALS</b>								
7.	UBHE5PA	Marine Hydrodynamics Laboratory	PC	4	0	0	4	2
8.	UBHE5PB	Concrete Technology Laboratory	PC	3	0	0	3	2
9.	UBLECPF	Personality Development Programme - I	EEC	2	0	0	2	1
10.	UBSTCPA	STCW *	EEC	0	0	0	0	1
		<b>TOTAL</b>		<b>30</b>	<b>21</b>	<b>0</b>	<b>9</b>	<b>27</b>
<b>OPEN ELECTIVE</b>								
12	UBHE509	Coastal Hazards And Management	OE	2	0	0	2	2
13	UBHE510	Computational Fluid Dynamics	OE	2	0	0	2	2
<b>DEPARTMENT ELECTIVE</b>								
15	UBHE507	Ocean Pollution and Environmental Engineering	PE	3	0	0	3	3
16	UBHE508	Construction Management	PE	3	0	0	3	3

**Semester: VI**

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
<b>THEORY</b>								
1.	UBHE601	Foundation Engineering	PC	3	3	0	0	3
2.	UBHE602	Theory of Coastal Surveying - II	PC	3	3	0	0	3
3.	UBHE603	Design of Steel Structures	PC	3	3	0	0	3
4.	UBHE604	Quantity Surveying	PC	3	3	0	0	3
5.	UBHE605	Port Planning - I	PC	3	3	0	0	3
6.		Core Elective Course - II	PE	3	3	0	0	3
7.		Open Elective Course - II	OE	2	2	0	0	2
<b>PRACTICALS</b>								
8.	UBHE6PA	Coastal Survey Laboratory II	PC	4	0	0	4	2
9.	UBHE6PB	Marine Geotechnical Engineering Laboratory	PC	4	0	0	4	2
10.	UBLECPG	Personality Development Programme - II	EEC	2	0	0	2	1
11.	UBIVCPZ	Industrial Training	EEC	0	0	0	0	1
		<b>TOTAL</b>		<b>30</b>	<b>20</b>	<b>0</b>	<b>10</b>	<b>26</b>
<b>OPEN ELECTIVES</b>								
12	UBHE609	Marine instrumentations	OE	2	2	0	0	2
13	UBHE610	Physical and numerical modeling	OE	2	2	0	0	2
<b>PROFESSIONAL ELECTIVE</b>								
15	UBHE607	Sediment Transport	PE	3	3	0	0	3
16	UBHE608	Space Geodesy	PE	3	3	0	0	3

**Semester: VII**

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
<b>THEORY</b>								
1.	UBHE701	Port Planning - II	PC	3	3	0	0	3
2.	UBHE702	Offshore Structural Analysis	PC	3	3	0	0	3
3.	UBHE703	Advanced Design of Coastal Structures	PC	4	4	0	0	4
4.	UBHE704	Prestressed Concrete Structures	PC	4	4	0	0	4
5.		Core Elective Course - III	PE	3	3	0	0	3
<b>PRACTICALS</b>								
6.	UBISCPX	Internship	EEC	0	0	0	0	2
7.	UBHE7PA	Coastal Modeling Laboratory II	PC	4	0	0	4	2
8.	UBHE7PB	Major Design Project Phase - I	EEC	4	0	0	4	2
		<b>TOTAL</b>		<b>25</b>	<b>17</b>	<b>0</b>	<b>8</b>	<b>23</b>
<b>DEPARTMENT ELECTIVES</b>								
9	UBHE705	Geotechnical behavior of Expansible & Collapsible Soils	PE	3	3	0	0	3
10	UBHE706	Integrated Coastal Zone Management	PE	3	3	0	0	3

**Semester: VIII**

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
<b>THEORY</b>								
1.	UBHE801	Advanced Dredging Technology	PC	3	3	0	0	3
2.	UBHE802	Advanced Geotechnical Behavior of Dredged Materials	PC	3	3	0	0	3
3.	UBHE803	Engineering Economics and cost analysis	PC	3	3	0	0	3
4.	UBHE804	Design of Offshore Pipelines	PC	3	3	0	0	3
<b>PRACTICALS</b>								
5.	UBMC8PA	Major Design Project Phase - II	EEC	12	0	0	12	6
		<b>TOTAL</b>		<b>24</b>	<b>12</b>	<b>0</b>	<b>12</b>	<b>18</b>



## **List of Courses for the Program**

(Category Wise)

### **Humanities Courses**

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
1.	UBLEC01	Technical English-I	HS	2	2	0	0	2
2.	UBLEC02	Technical English-II	HS	2	2	0	0	2
3.	UBBTC01	Environment Science	HS	2	2	0	0	2

### **Basic Sciences**

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UBMTC01	Engineering Mathematics-I	BS	4	3	1	0	4
	UBPHC01	Engineering Physics-I	BS	3	3	0	0	3
	UBCHC01	Engineering Chemistry	BS	3	3	0	0	3
	UBPHCPA	Engineering Physics Laboratory	BS	2	0	0	2	1
	UBCHCPA	Engineering Chemistry Laboratory	BS	2	0	0	2	1
	UBMTC02	Engineering Mathematics-II	BS	4	3	1	0	4
	UBPHC02	Engineering Physics-II	BS	3	3	0	0	3
	UBWSCPA	Engineering Practices Laboratory	BS	4	0	0	4	2
	UBMTC03	Engineering Mathematics III	BS	4	3	1	0	4
	UBHE401	Ocean Data Analysis	BS	4	4	0	0	4

## Engineering Science

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UCITC01	Introduction to Programming in C and C++	ES	3	3	0	0	3
	UBMCCPA	Engineering Graphics	ES	4	0	2	2	3
	UBITCPA	Programming in C and C++ Laboratory	ES	2	0	0	2	1
	UBEEC01	Basics of Electrical & Electronic Engineering	ES	3	3	0	0	3
	UBMCC03	Engineering Mechanics	ES	4	3	1	0	4
	UBMCC11	Thermodynamics	ES	3	3	0	0	3
	UBEECPA	Basics of Electrical & Electronics Practical	ES	2	0	0	2	1
	UBHE302	Mechanics of Fluids	ES	3	3	0	0	3

## Professional Core

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UBHE301	Materials for Marine Environment	PC	3	3	0	0	3
	UBHE303	Introduction to Coastal & Offshore Technology	PC	3	3	0	0	3
	UBHE304	Wave Hydrodynamics	PC	4	4	0	0	4
	UBHE305	Mechanics of Solids	PC	4	4	0	0	4
	UBHE3PA	Mechanics of Fluids Laboratory	PC	2	0	0	2	1
	UBHE3PB	Mechanics of Solids Laboratory	PC	2	0	0	2	1
	UBHE402	Oceanography	PC	4	4	0	0	4
	UBHE403	Basics of Dredging Technology	PC	3	3	0	0	3
	UBHE404	Theory of Coastal Surveying – I	PC	4	4	0	0	4
	UBHE405	Applied Coastal Hydraulics & Hydraulic Machinery	PC	4	4	0	0	4
	UBHE4PA	Coastal Survey Laboratory – I	PC	2	0	0	2	1
	UBHE4PB	Coastal Modeling	PC	2	0	0	2	1

		Laboratory - I						
	UBHE4PC	Harbour – Computer Aided Design	PC	2	0	0	2	1
	UBHE501	Design of Coastal Structures	PC	4	4	0	0	4
	UBHE502	Marine Geotechnical Engineering	PC	4	4	0	0	4
	UBHE503	Theory of Structures	PC	4	4	0	0	4
	UBHE504	Design of RC Structures	PC	4	4	0	0	4
	UBHE5PA	Marine Hydrodynamics Laboratory	PC	4	0	0	4	2
	UBHE5PB	Concrete Technology Laboratory	PC	3	0	0	3	2
	UBHE601	Foundation Engineering	PC	3	3	0	0	3
	UBHE602	Theory of Coastal Surveying - II	PC	3	3	0	0	3
	UBHE603	Design of Steel Structures	PC	3	3	0	0	3
	UBHE604	Quantity Surveying	PC	3	3	0	0	3
	UBHE605	Port Planning - I	PC	3	3	0	0	3
	UBHE6PA	Coastal Survey Laboratory II	PC	4	0	0	4	2
	UBHE6PB	Marine Geotechnical Engineering Laboratory	PC	4	0	0	4	2
	UBHE701	Port Planning - II	PC	3	3	0	0	3
	UBHE702	Offshore Structural Analysis	PC	3	3	0	0	3
	UBHE703	Advanced Design of Coastal Structures	PC	4	4	0	0	4
	UBHE704	Prestressed Concrete Structures	PC	4	4	0	0	4
	UBHE7PA	Coastal Modeling Laboratory - II	PC	4	0	0	4	2
	UBHE801	Advanced Dredging Technology	PC	3	3	0	0	3
	UBHE802	Advanced Geotechnical Behavior of Dredged Materials	PC	3	3	0	0	3
	UBHE803	Engineering Economics and cost analysis	PC	3	3	0	0	3
	UBHE804	Design of Offshore Pipelines	PC	3	3	0	0	3

## Professional Elective

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UBHE507	Ocean Pollution and Environmental Engineering	PE	3	0	0	3	3
	UBHE508	Construction Management	PE	3	0	0	3	3
	UBHE607	Sediment Transport	PE	3	3	0	0	3
	UBHE608	Space Geodesy	PE	3	3	0	0	3
	UBHE705	Geotechnical behavior of Expansible & Collapsible Soils	PE	3	3	0	0	3
	UBHE706	Integrated Coastal Zone Management	PE	3	3	0	0	3

## Open Elective

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UBHE509	Coastal Hazards And Management	OE	2	0	0	2	2
	UBHE510	Computational Fluid Dynamics	OE	2	0	0	2	2
	UBHE609	Marine instrumentations	OE	2	2	0	0	2
	UBHE610	Physical and numerical modeling	OE	2	2	0	0	2

## Employment Enhancement Course

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UCLECPB	Spoken Skills - I	EEC	3	0	0	3	2
	UCLECPD	Spoken Skills - II	EEC	3	0	0	3	2
	UCLECPD	Spoken Skills - III	EEC	3	0	0	3	2
	UCLECPD	Spoken Skills - IV	EEC	3	0	0	3	2
	UBLECPF	Personality Development Programme - I	EEC	2	0	0	2	1
	UBSTCPA	STCW *	EEC	0	0	0	0	1
	UBLECPG	Personality Development Programme - II	EEC	2	0	0	2	1
	UBIVCPZ	Industrial Training	EEC	0	0	0	0	1
	UBISCPX	Internship	EEC	0	0	0	0	2
	UBHE7PB	Major Design Project Phase - I	EEC	4	0	0	4	2
	UBMC8PA	Major Design Project Phase - II	EEC	12	0	0	12	6