

# 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.	UCLEC01	Technical English-I	HS	2	2	0	0	2
2.	UCMTC01	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.	UBMCCPA	Engineering Graphics	ES	4	0	2	2	3
6.	UCITC01	Introduction to Programming in C And C++	ES	3	3	0	0	3
<b>PRACTICALS</b>								
7.	UBWSCPA	Engineering Practices laboratory	BS	2	0	0	2	1
8.	UBCHCPA	Engineering Chemistry laboratory	BS	2	0	0	2	1
9.	UCITCPA	Programming in C and C++ Laboratory	ES	2	0	0	2	1
10	UCLEC01	Spoken English-I	EEC	4	0	0	4	2
		<b>TOTAL</b>		<b>29</b>	<b>14</b>	<b>3</b>	<b>12</b>	<b>23</b>

L – Lecture

T – Tutorial

P – Practical / Laboratory

C - Credit

HS – Humanities Courses

BS – Basic Science

ES – Engineering Science

PC – Professional Core

PE – Professional Elective

EEC – Employment enhancement Course

**Semester: II**

S. No	Course Code	Course Title	Category	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.	UCPHCPA	Engineering Physics laboratory	BS	2	0	0	2	1
10.	UCLEC02	Spoken English – II	EEC	4	0	0	4	2
		<b>TOTAL</b>		<b>29</b>	<b>19</b>	<b>2</b>	<b>8</b>	<b>25</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	4	0	0	4
2.	UBMC303	Manufacturing Technology - I	PC	3	3	0	0	3
3.	UBMC306	Material Science	ES	3	3	0	0	3
4.	UBMC304	Fluid Mechanics And Machinery	PC	3	3	0	0	3
5.	UBMC302	Kinematics Of Machines	PC	3	3	0	0	3
6.	UBEE304	Electrical Drives And Controls	PC	3	3	0	0	3
<b>PRACTICALS</b>								
7.	UBMC3PA	Computer Design And Drafting Laboratory	PC	2	0	0	2	1
8.	UBCCPC	Fluid Mechanics And Machinery Laboratory	PC	2	0	0	2	1
9.	UBEE3PB	Electrical Engineering laboratory	PC	2	0	0	2	1
10.	UCLEC03	Spoken English - III	EEC	2	0	0	2	1
		<b>TOTAL</b>		<b>27</b>	<b>19</b>	<b>0</b>	<b>10</b>	<b>23</b>





**Semester: VI**

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
<b>THEORY</b>								
1.	UBMCC02	Design of Transmission Systems	PC	3	3	0	0	3
2.	UBMC602	Computer Aided Design and Manufacturing	PC	3	3	0	0	3
3.	UBMC603	Refrigeration and Air Conditioning	PC	3	3	0	0	3
4.	UBNAC01	Naval Architecture - I	PC	3	3	0	0	3
5.		Open Elective	OE	3	3	0	0	3
6.		Department Elective	PE	3	3	0	0	3
<b>PRACTICALS</b>								
7.	UBMC6PA	CAD / CAM laboratory	PC	2	0	0	2	1
8.	UBMC6PB	Refrigeration and Air Conditioning laboratory	PC	2	0	0	2	1
9.	UBMPCPY	Mini Project	EEC	4	0	0	4	2
10.	UBLECPG	Personality Development Programme	EEC	2	0	0	2	1
11.	UBIVCPZ	Industrial Visit	EEC		0	0	0	1
		<b>TOTAL</b>		<b>28</b>	<b>18</b>	<b>0</b>	<b>10</b>	<b>24</b>
<b>OPEN ELECTIVES</b>								
12	UBPE612	Renewable Energy Sources	OE	3	3	0	0	3
13	UBMC611	Facilities Planning	OE	3	3	0	0	3
14	UBMC612	Modern Manufacturing Techniques	OE	3	3	0	0	3
<b>DEPARTMENT ELECTIVES</b>								
15	UBMC609	Measurement and Instrumentation Techniques	PE	3	3	0	0	3
16	UBMC608	Marine Diesel Engines	PE	3	3	0	0	3
17	UBMC610	Power Plant Engineering	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.	UBMC701	Automobile Engineering	PC	3	3	0	0	3
2.	UBMC704	Operations Research	PC	3	3	0	0	3
3.	UBNAC02	Naval Architecture - II	PC	3	3	0	0	3
4.	UBMC703	Mechatronics	PC	3	3	0	0	3
5.	UBBSC01	Total Quality Management	PC	3	3	0	0	3
6.		Department Electives	PE	3	3	0	0	3
<b>PRACTICALS</b>								
7.	UBMC7PA	Project Phase-I	EEC	8	0	0	8	4
8.	UBMC7PZ	Industrial Training-II	EEC		0	0	2	1
		<b>TOTAL</b>		<b>26</b>	<b>18</b>	<b>0</b>	<b>10</b>	<b>23</b>
<b>DEPARTMENT ELECTIVES</b>								
9	UBMC706	Design of Jigs And Fixtures	PE	3	3	0	0	3
10	UBMC707	Design of Pressure Vessels And Piping	PE	3	3	0	0	3
11	UBMC708	Fuels And Combustion	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.	UBMC801	Advanced IC Engines	PC	3	3	0	0	3
2.	UBBS802	Entrepreneurship Development	PC	3	3	0	0	3
<b>PRACTICALS</b>								
3.	UBMC8PA	Project Phase - II	EEC	12	0	0	12	6
		<b>TOTAL</b>		<b>18</b>	<b>6</b>	<b>0</b>	<b>12</b>	<b>12</b>



# List of Courses for the Program

(Category wise)

## Humanities Courses

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UCLEC01	Technical English-I	HS	2	2	0	0	2
	UCLEC02	Technical English-II	HS	2	2	0	0	2
	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
	UCPHC01	Engineering Physics-I	BS	3	3	0	0	3
	UBCHC01	Engineering Chemistry	BS	3	3	0	0	3
	UBWSCPA	Engineering Practices 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
	UCPHC02	Engineering Physics-II	BS	3	3	0	0	3
	UCPHCPA	Engineering Physics laboratory	BS	2	0	0	2	1
	UBMTC03	Engineering Mathematics III	BS	4	4	0	0	4
	UBMT404	Statistics And Numerical Methods	BS	4	4	0	0	4

## Engineering Science

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UBMCCPA	Engineering Graphics	ES	4	0	2	2	3
	UCITC01	Introduction to Programming in C And C++	ES	3	3	0	0	3
	UCITCPA	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
	UBMC306	Material Science	ES	3	3	0	0	3

## Professional Core

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UBMC303	Manufacturing Technology - I	PC	3	3	0	0	3
	UBMC304	Fluid Mechanics And Machinery	PC	3	3	0	0	3
	UBMC302	Kinematics Of Machines	PC	3	3	0	0	3
	UBEE304	Electrical Drives And Controls	PC	3	3	0	0	3
	UBMC3PA	Computer Design And Drafting Laboratory	PC	2	0	0	2	1
	UBCCPC	Fluid Mechanics And Machinery Laboratory	PC	2	0	0	2	1
	UBEE3PB	Electrical Engineering laboratory	PC	2	0	0	2	1
	UBMC401	Manufacturing Technology - II	PC	3	3	0	0	3
	UBMCC09	Strength of Materials	PC	3	3	0	0	3
	UBMEC01	Marine Engineering -I	PC	3	3	0	0	3

	UBMCC10	Thermal Engineering	PC	3	3	0	0	3
	UBMC4PA	Manufacturing Technology Laboratory	PC	2	0	0	2	1
	UBMC4PH	Strength Of Materials Laboratory	PC	2	0	0	2	1
	UBLECPE	Thermal Engineering Laboratory	PC	2	0	0	2	1
	UBMC505	Modern Machining Process	PC	3	3	0	0	3
	UBMCC05	Pneumatics, Hydraulics & Electrical Control Systems	PC	3	3	0	0	3
	UBMC501	Heat and Mass Transfer	PC	3	3	0	0	3
	UBMC505	Marine Engineering - II	PC	3	3	0	0	3
	UBMC5PA	Machine Drawing	PC	2	0	2	2	1
	UBMCCPB	Pneumatics, Hydraulics & Electrical Control laboratory	PC	2	0	0	2	1
	UBMC5PB	Modelinglaboratory	PC	2	0	0	2	1
	UBMCC02	Design of Transmission Systems	PC	4	4	0	0	4
	UBMC602	Computer Aided Design and Manufacturing	PC	3	3	0	0	3
	UBMC603	Refrigeration and Air Conditioning	PC	3	3	0	0	3
	UBNAC01	Naval Architecture - I	PC	3	3	0	0	3
	UBMC6PA	CAD / CAM laboratory	PC	2	0	0	2	1
	UBMC6PB	Refrigeration and Air Conditioning laboratory	PC	2	0	0	2	1
	UBMC701	Automobile Engineering	PC	3	3	0	0	3
	UBMC704	Operations Research	PC	3	3	0	0	3
	UBNAC02	Naval Architecture - II	PC	3	3	0	0	3
	UBMC703	Mechatronics	PC	3	3	0	0	3
	UBBSC01	Total Quality Management	PC	3	3	0	0	3

## **Professional Elective**

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UBMCC07	Mechanics Of Machines	PE	3	3	0	0	3
	UBMC402	Alternate Fuels	PE	3	3	0	0	3
	UBMCC01	Design of Machine Elements	PE	3	3	0	0	3
	UBMC509	Finite Element Analysis	PE	3	3	0	0	3
	UBMC510	Welding Technology	PE	3	3	0	0	3

	UBMCC02	Design of Transmission Systems	PE	3	3	0	0	3
	UBMC602	Computer Aided Design and Manufacturing	PE	3	3	0	0	3
	UBMC603	Refrigeration and Air Conditioning	PE	3	3	0	0	3
	UBNAC01	Naval Architecture - I	PE	3	3	0	0	3
	UBMC6PA	CAD / CAM laboratory	PE	2	0	0	2	1
	UBMC6PB	Refrigeration and Air Conditioning laboratory	PE	2	0	0	2	1
	UBMC609	Measurement and Instrumentation Techniques	PE	3	3	0	0	3
	UBMC608	Marine Diesel Engines	PE	3	3	0	0	3
	UBMC610	Power Plant Engineering	PE	3	3	0	0	3
	UBMC706	Design of Jigs And Fixtures	PE	3	3	0	0	3
	UBMC707	Design of Pressure Vessels And Piping	PE	3	3	0	0	3
	UBMC708	Fuels And Combustion	PE	3	3	0	0	3
	UBMC801	Advanced IC Engines	PE	3	3	0	0	3
	UBBS802	Entrepreneurship Development	PE	3	3	0	0	3

## Open Elective

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UBMC512	Industrial Management and Safety Engineering	OE	3	3	0	0	3
	UBMC513	Maintenance Engineering	OE	3	3	0	0	3
	UBMC511	Engine Pollution and Emission Control	OE	3	3	0	0	3
	UBPE612	Renewable Energy Sources	OE	3	3	0	0	3
	UBMC611	Facilities Planning	OE	3	3	0	0	3
	UBMC612	Modern Manufacturing Techniques	OE	3	3	0	0	3

## Employment Enhancement Courses

S. No	Course Code	Course Title	Category	Contact Hours	L	T	P	C
	UCLEC01	Spoken English-I	EEC	4	0	0	4	2
	UCLEC02	Spoken English - II	EEC	4	0	0	4	2
	UCLEC03	Spoken English - III	EEC	2	0	0	2	1
	UCLEC04	Spoken English - IV	EEC	2	0	0	2	1
	UBLECPF	Personality Development Programme	EEC	2	0	0	2	1
	UBMC5PZ	Industrial Training-I	EEC		0	0	2	1
	UBMPCPY	Mini Project	EEC	4	0	0	4	2
	UBLECPG	Personality Development Programme	EEC	2	0	0	2	1
	UBIVCPZ	Industrial Visit	EEC		0	0	0	1
	UBMC7PA	Project Phase-I	EEC	8	0	0	8	4
	UBMC7PZ	Industrial Training-II	EEC		0	0	2	1
	UBMC8PA	Project Phase - II	EEC	12	0	0	12	6