



**BRAINWARE UNIVERSITY**  
**SCHOOL OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**Diploma in Civil Engineering-2023**

**Mandatory Induction Program (Duration: 1 week)**

- Physical activity
- Creative Arts
- Universal Human Values
- Literary
- Proficiency Modules
- Lectures by Eminent People
- Visits to local Areas
- Familiarization to Dept./Branch & Innovations

**Different components of Mandatory Induction Program will be implemented as per the guidelines of Regulatory Bodies.**

**SEMESTER – I**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
HS101	Communication Skills in English	HS	2	0	0	2	50
BS101	Applied Chemistry	BS	3	0	0	3	100
BS102	Mathematics-I	BS	3	0	0	3	100
ES101	Introduction to IT Systems	ES	3	0	0	3	100
ES102	Engineering Mechanics	ES	3	0	0	3	100
<b>Practical</b>							
HS191	Communication Skills in English Lab	HS	0	0	2	1	50
BS191	Applied Chemistry lab	BS	0	0	3	1.5	100
ES191	Introduction to IT Systems	ES	0	0	2	1	50
ES192	Engineering Mechanics Lab	ES	0	0	2	1	50
ES193	Engineering Workshop Practice	ES	0	0	3	1.5	100
Total						<b>20</b>	<b>800</b>
AU-1	Yoga and Sport	MC	0	0	1	0	0
Total						<b>20</b>	<b>800</b>

**Total Hours: 27**

**SEMESTER – II**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
BS201	Applied Physics	BS	3	0	0	3	100
BS202	Mathematics-II	BS	3	1	0	4	100
ES201	Fundamentals of Electrical & Electronics Engineering	ES	3	0	0	3	100
ES202	Computer Programming	ES	3	0	0	3	100
BS291	Applied Physics Lab	BS	0	0	3	1.5	100
ES291	Fundamentals of Electrical & Electronics Engineering Lab	ES	0	0	2	1	50
ES292	Computer Programming Lab	ES	0	0	2	1	50
ES293	Engineering Graphics	ES	0	0	3	1.5	100
<b>Total</b>						<b>18</b>	<b>700</b>



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AU-2	Environmental Science	AU	2	0	0	0	0
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**Total Hours: 25**



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**SEMESTER-III**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
DCEPC301	Building Material and Construction	PC	3	0	0	3	100
DCEPC391	Construction Material Lab	PC	0	0	2	1	50
DCEPC302	Surveying	PC	3	0	0	3	100
DCEPC392	Surveying Lab - I	PC	0	0	2	1	50
DCEPC303	Mechanics of Materials	PC	3	0	0	3	100
DCEPC393	Mechanics of Materials Lab	PC	0	0	2	1	50
DCEPC304	Concrete Technology	PC	3	0	0	3	100
DCEPC394	Concrete Technology Lab	PC	0	0	3	1.5	100
DCEPC305	Geotechnical Engineering	PC	3	0	0	3	100
DCEPC395	Geotechnical Engineering Lab	PC	0	0	2	1	50
DCEPROJ381	Internship-I / Industrial Training-I	PR	0	0	0	2	50
Total						22.5	850

**Total Hours: 26**

**SEMESTER-IV**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
DCEPC401	Hydraulics	PC	3	0	0	3	100
DCEPC491	Hydraulics Lab	PC	0	0	2	1	50
DCEPC492	Surveying Lab – II	PC	0	0	2	1	50
DCEPC402	Theory of Structure	PC	3	0	0	3	100
DCEPC403	Building Planning and Drawing	PC	1	0	0	1	50
DCEPC493	Building Planning and Drawing Lab	PC	0	0	3	1.5	100
DCEPC404	Transportation Engineering	PC	3	0	0	3	100
DCEPC494	Transportation Engineering Lab	PC	0	0	2	1	50
DCEPE401A/B/C	Program Elective – I A. Precast and Prestressed Concrete B. Construction Management C. Rural Construction Technology	PE	3	0	0	3	100
DCEPROJ481	Minor Project	PR	0	0	4	2	100
Total						19.5	800
AU-3	Essence of Indian Knowledge and Tradition	MC	1	0	0	0	0

**Total Hours: 28**



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**SEMESTER-V**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
DCEPC501	Design of Steel and RCC structure	PC	3	0	0	3	100
DCEPC591	Design of Steel and RCC structure Lab	PC	0	0	2	1	50
DCEPC502	Estimating, Costing and valuation	PC	3	0	0	3	100
DCEPC503	Water Resource Engineering	PC	3	0	0	3	100
DCEPE501A/B/C/D	Program Elective – II	PE	3	0	0	3	100
	A. Traffic Engineering						
	B. Solid Waste Management						
	C. Advanced Construction Technology						
DCEPE502A/B/C	Program Elective –III	PE	3	0	0	3	100
	A. Pavement Design & maintenance						
	B. Green Building and Energy Conservation						
	C. Building Services and Maintenance						
DCEOE501A/B/C/D	Open Elective-I	OE	3	0	0	3	100
	A. Disaster Management						
	B. Internet of Things						
	C. Professional Orientation						
D. Fundamentals and application of GIS and Remote sensing							
DCEPROJ581	Internship-II/ Industrial Training-II	PR	0	0	0	3	100
DCEPROJ582	Major Project-I	PR	0	0	2	1	50
Total						23	800
AU-4	Technical Grooming	MC	1	0	0		

**Total Hours: 23**



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**SEMESTER-VI**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
DCEPE601A/B/C	Program Elective –IV A. Repairs and Maintenance of Structures B. Advanced Design of Structures C. Tendering and Accounts	PE	3	0	0	3	100
HS601	Entrepreneurship and Start-ups	HS	3	0	0	3	100
DCEOE601A/B/C	Open Elective-II A. Environment & Sustainable Development for Human Survival B. Web Designing and Multimedia Technology C. Renewable Energy Technologies	OE	3	0	0	3	100
DCEOE602A/B/C	Open Elective-I A. Artificial Intelligence B. Cyber Security Laws, Standards and IPR C. Robotics	OE	3	0	0	3	100
DCEPROJ681	Major Project-II	PR	0	0	6	3	100
DCEPROJ682	Seminar	PR	0	0	0	1	50
DCEPROJ683	Grand Viva		0	0	0	1	50
Total						17	650
AU-5	Constitution of India	MC	1	0	0	0	0

**Total Hours: 19**

**Total Credit -120**

**Total Marks -4600**