



**BRAINWARE UNIVERSITY**  
**SCHOOL OF ENGINEERING**  
**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**  
**Diploma in Computer Science and 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 the 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
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 Lab	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
<b>Total</b>						<b>20</b>	<b>800</b>
AU-1	Yoga and Sports	AU	0	0	1	0	0

**Total Hours: 27**



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**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>
AU-2	Environmental Science	AU	2	0	0	0	0

**Total Hours: 25**



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**SEMESTER-III**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
DCSE-PC301	Data Structures	PC	3	0	0	3	100
DCSE-PC302	Digital Electronics	PC	3	0	0	3	100
DCSE-PC303	Operating Systems	PC	3	0	0	3	100
DCSE-PC304	Software Engineering	PC	3	0	0	3	100
DCSE-PC305	OOP with C++	PC	3	0	0	3	100
DCSE-PC391	Data Structures Lab	PC	0	0	2	1	50
DCSE-PC392	Digital Electronics Lab	PC	0	0	2	1	50
DCSE-PC393	Operating Systems Lab	PC	0	0	2	1	50
DCSE-PC394	Scripting Languages Lab	PC	0	0	2	1	50
DCSE-PC395	OOP with C++ Lab	PC	0	0	2	1	50
<b>Total</b>						<b>20</b>	<b>750</b>

**Total Hours: 25**

**SEMESTER-IV**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
DCSE-PC401	Computer Organization	PC	3	0	0	3	100
DCSE-PC402	Design and Analysis of Algorithm	PC	3	0	0	3	100
DCSE-PC403	Introduction to DBMS	PC	3	0	0	3	100
DCSE-PC404	Web Technologies	PC	3	0	0	3	100
DCSE-PC405	Computer Networks	PC	3	0	0	3	100
DCSE-PC491	Computer Organization Lab	PC	0	0	2	1	50
DCSE-PC492	Design and Analysis of Algorithm Lab	PC	0	0	2	1	50
DCSE-PC493	DBMS Lab	PC	0	0	2	1	50
DCSE-PC494	Web Technologies Lab	PC	0	0	2	1	50
DCSE-PC495	Computer Networks Lab	PC	0	0	2	1	50
<b>Total</b>						<b>20</b>	<b>750</b>
AU-3	Essence of Indian Knowledge and Tradition	AU	2	0	0	0	0

**Total Hours: 27**



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**SEMESTER-V**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
HS501	Entrepreneurship and Startups	HS	3	1	0	4	100
DCSE-PC501	Internet of Things	PC	3	0	0	3	100
DCSE-PE501	Elective-I A. Mobile Computing B. Multimedia Technologies	PE	3	0	0	3	100
DCSE-PE502	Elective-II A. Information Security B. Network Forensics	PE	3	0	0	3	100
DCSE-OE501	Open Elective-I A. Renewable Energy Technologies B. Operations Research	OE	3	0	0	3	100
PROJ DCSE-581	Industrial Training	PROJ	-			2	100
PROJ DCSE-582	Technical Seminar-I	PROJ	-			2	100
PROJ DCSE-583	Project-I	PROJ	-			3	100
<b>Total</b>						<b>23</b>	<b>800</b>

**Total Hours: 16**



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**SEMESTER-VI**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks	
			L	T	P			
DCSE-PC601	E-Commerce	PC	3	0	0	3	100	
DCSE-PC602	A. Microprocessor	PC	3	0	0	3	100	
DCSE-PE601	Elective-III A. FOSS (Free and Open Source Software) B. Software Testing	PE	3	0	0	3	100	
DCSE-PE602	Elective-IV A. Fundamentals of AI B. Data Warehousing and Data Mining	PE	3	0	0	3	100	
DCSE-OE601	Open Elective-III A. Cyber law and Security B. Project Management	OE	3	0	0	3	100	
DCSE-PC691	Computer Hardware Maintenance Lab	PC	0	0	2	1	100	
PRO DCSE-J682	Project-II	PROJ	-			4	100	
PRO DCSE-J683	Grand viva	PROJ	-			2	100	
<b>Total</b>						<b>21</b>	<b>700</b>	

**Total Hours: 15**

**Total Credit: 122**

**Total Marks: 4500**



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Diploma in CSE										
Semester	Course Category								Total Credit	Total Hours per Week
	HS	BS	ES	PC	PE	OE	AU	PROJ		
I	3	7.5	9.5				Y		20	27
II		8.5	9.5				Y		18	25
III				20					20	25
IV				20			Y		20	27
V	4			3	6	3		7	23	16
VI				3	6	6		6	21	15
<b>Total</b>	<b>7</b>	<b>16</b>	<b>19</b>	<b>46</b>	<b>12</b>	<b>9</b>		<b>13</b>	<b>122</b>	<b>135</b>
Percentage	5.73%	13.11%	15.6%	37.7%	9.8%	7.4%		10.7%		