



BRAINWARE UNIVERSITY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Bachelor of Technology in Computer Science & Engineering 2020

Mandatory Induction Program (Duration: 3 weeks)

- 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 AICTE.

SEMESTER – I

Course Code	Course Name	L - T - P	Credits	Total Marks
BSC(CSE)101	Calculus	3 - 1 - 0	4	100
BSC(CSE)102	Physics	2 - 1 - 0	3	100
ESC(CSE)101	Basic Electrical Engineering	2 - 1 - 0	3	100
BSC(CSE)192	Physics Lab	0 - 0 - 3	1.5	100
ESC(CSE)191	Basic Electrical Engineering Lab	0 - 0 - 3	1.5	100
ESC(CSE)192	Engineering Graphics & Design	1 - 0 - 4	3	100
MC-1	NSS	0 - 0 - 1	0	0
Total			16	600

SEMESTER – II

Course Code	Course Name	L	T	P	Credits	Total Marks
HSMC(CSE)201	English I	2	0	0	2	100
HSMC(CSE)202	Human Values and Professional Ethics	2	1	0	3	100
BSC(CSE)201	Linear Algebra and Differential Equations	3	1	0	4	100
BSC(CSE)202	Chemistry	2	1	0	3	100
ESC(CSE)201	Programming for Problem Solving	3	0	0	3	100
HSMC(CSE)291	English I Lab	0	0	2	1	100
BSC(CSE)292	Chemistry Lab	0	0	3	1.5	100
ESC(CSE)291	Programming for Problem Solving Lab	0	0	3	1.5	100
ESC(CSE)292	Workshop/ Manufacturing Practices	1	0	3	3	100
MC-2	Environmental Science	1	0	0	0	0
Total					22	900

SEMESTER – III

Course Code	Course Name	L - T - P	Credits	Total Marks
HSMC(CSE)301	English II	2 - 0 - 0	2	100
BSC(CSE)301	Probability and Statistics	2 - 0 - 0	2	100



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ESC(CSE)301	Analog Electronic Circuits	3 – 0 – 0	3	100
ESC(CSE)302	Digital Electronics	3 – 0 – 0	3	100
PCC-CS301	Data structure and Algorithms	3 - 0 – 0	3	100
PCC-CS302	IT Workshop (Sci Lab/MATLAB)	1 – 0 – 0	1	100
ESC(CSE)391	Analog Electronic Circuits Lab	0 – 0 – 3	2	100
ESC(CSE)392	Digital Electronics Lab	0 – 0 – 3	2	100
PCC-CS391	Data structure and Algorithms Lab	0 – 0 – 3	2	100
PCC-CS392	IT Workshop (Sci Lab/MATLAB)	0 – 0 – 3	2	100
MC-3	Essence of Indian Traditional Knowledge	1 – 0 – 0	0	0
Total			22	1000

SEMESTER – IV

Course Code	Course Name	L - T - P	Credits	Total Marks
HSMC(CSE)401	Management I	3 – 0 – 0	3	100
PCC-CS401	Computer Organization and Architecture	3 - 0 – 0	3	100
PCC-CS402	Design and Analysis of Algorithm	3 - 0 – 0	3	100
PCC-CS403	Operating Systems	3 - 0 – 0	3	100
PCC-CS404	Discrete Mathematics	3 - 1 – 0	4	100
HSMC(CSE)491	English II Lab	0 – 0 – 2	1	100
PCC-CS491	Computer Organization and Architecture Lab	0 - 0 – 3	2	100
PCC-CS492	Design and Analysis of Algorithm Lab	0 - 0 – 3	2	100
PCC-CS493	Operating Systems Lab	0 - 0 – 3	2	100
PCC-CS494	Linux Administration Lab	0 – 0 – 2	1	100
Total			24	1000

SEMESTER – V

Course Code	Course Name	L - T - P	Credits	Total Marks
HSMC(CSE)501	Management II	3 – 0 – 0	3	100
ESC(CSE)501	Signals and Systems	3 – 0 – 0	3	100
PCC-CS501	Database Management Systems	3 - 0 – 0	3	100
PCC-CS502	Object Oriented Programming	3 - 0 – 0	3	100
PCC-CS503	Formal Language and Automata Theory	3 - 0 – 0	3	100
PEC-501	Elective I A. Image Processing B. Software Engineering C. Artificial Intelligence	3 - 0 – 0	3	100
PCC-CS591	Database Management System Lab	0 – 0 - 3	2	100
PCC-CS592	Object Oriented Programming Lab	0 – 0 - 3	2	100
MC-4	Constitution of India	1 – 0 – 0	0	0



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Total	22	800
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SEMESTER – VI

Course Code	Course Name	L - T - P	Credits	Total Marks
PCC-CS601	Compiler Design	3 - 0 - 0	3	100
PCC-CS602	Computer Networks	3 - 0 - 0	3	100
PEC-601	Elective II A. Advanced Algorithms B. Distributed Systems C. Machine Learning D. Digital Signal Processing	3 - 0 - 0	3	100
PEC-602	Elective III A. Cloud Computing B. Embedded Systems C. Data Mining	3 - 0 - 0	3	100
OEC-601	Open Elective I (Humanities) A. Entrepreneurship B. Project Management C. Soft Skills and Interpersonal Communication D. Human Resource Development	3 - 0 - 0	3	100
PCC-CS691	Compiler Design Lab	0 - 0 - 3	2	100
PCC-CS692	Computer Networks Lab	0 - 0 - 3	2	100
CS682	Seminar I	0 - 0 - 2	1	100
Total			20	800

SEMESTER – VII

Course Code	Course Name	L - T - P	Credits	Total Marks
BSC(CSE)701	Biology	1 - 1 - 0	2	100
PEC-701	Elective IV A. Big Data Analysis B. Cloud Security	3 - 0 - 0	3	100
PEC-702	Elective V A. Data Analytics B. Advanced Computer Architecture C. MOOC Courses	3 - 0 - 0	3	100
OEC-701	Open Elective II A. Analog Communication B. Digital Communication C. Cyber Law and Ethics D. VLSI	3 - 0 - 0	3	100
PROJ-CS781	Industrial Training	0 - 0 - 6	2	100
PROJ-CS782	Project I	0 - 0 - 8	4	100
CS782	Seminar II	0 - 0 - 2	1	100
Total			18	700



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SEMESTER – VIII

Course Code	Course Name	L - T - P	Credits	Total Marks
PEC801	Elective VI A. Security and Privacy of Data B. Modelling Internet Attack	3 - 0 - 0	3	100
OEC-801	Open Elective III A. Research Methodology B. Control System C. MOOC Courses	3 - 0 - 0	3	100
OEC-802	Open Elective IV A. Fiber optic Communication B. Satellite Communication C. Organizational Behavior	3 - 0 - 0	3	100
PROJ-CS881	Project II	0 - 0 - 8	4	100
CS882	Grand Viva	0 - 0 - 0	3	100
	Total		16	500

Total Credit: 160

N. B. A student will be eligible to get Under Graduate degree with Honours or additional Minor Engineering, if he/she completes an additional 20 credits. These could be acquired through MOOCs.

The said course is however optional and the student is entitled to acquire such credits during the entire period of study.