



BRAINWARE UNIVERSITY
SCHOOL OF ENGINEERING
DEPARTMENT OF ELECTRICAL ENGINEERING
Bachelor of Technology in Electrical Engineering - 2025

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 Department/Branch and Innovations

SEMESTER – I

Sl. No.	Course Code	Course Name	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	TEE			
1	BHS00001	English for Technical Communication	3	0	0	40	60	100	3	HSMC
2	BBS00010	Engineering Chemistry	3	1	0	40	60	100	4	BSC
3	BBS00011	Engineering Mathematics -I	3	0	0	40	60	100	3	BSC
4	BES00002	Basic Electrical and Electronics Engineering	3	1	0	40	60	100	4	ESC
5	BES00005	Engineering Mechanics	3	0	0	40	60	100	3	ESC
6	BBS09020	Engineering Chemistry Lab	0	0	2	40	60	100	1	BSC
7	BES09008	Basic Electrical and Electronics Engineering Lab	0	0	2	40	60	100	1	ESC
8	BES09014	Engineering Graphics and Design Lab	0	0	3	40	60	100	1.5	ESC
9	BAU00003	Essence of Indian Knowledge and Tradition	2	0	0	0	0	0	0	AUC
Total			17	2	7	320	480	800	20.5	

SEMESTER – II

Sl. No.	Course Code	Course Name	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	TEE			
1	BHS07008	Effective Communication and Soft Skills	2	0	2	40	60	100	3	HSMC
2	BHS00004	Understanding Harmony and Ethical Human Conduct	2	0	0	40	60	100	2	HSMC
3	BBS00012	Engineering Mathematics -II	3	0	0	40	60	100	3	BSC
4	BBS00015	Semiconductor Physics	3	1	0	40	60	100	4	BSC
5	BES00006	Programming for Problem Solving	3	1	0	40	60	100	4	ESC
6	BBS09022	Semiconductor Physics Lab	0	0	2	40	60	100	1	BSC
7	BES09012	Programming for Problem Solving Lab	0	0	2	40	60	100	1	ESC
8	BES09015	Workshop and Manufacturing Practices	0	0	3	40	60	100	1.5	ESC
9	BAU00004	Yoga and Sports	2	0	0	0	0	0	0	AUC
Total			15	2	9	320	480	800	19.5	



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SEMESTER – III

Sl. No.	Course Code	Course Name	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	TEE			
1	BBS00001	Advanced Engineering Mathematics	3	1	0	40	60	100	4	BSC
2	BTE30101	Electrical Machine I	4	0	0	40	60	100	4	PCC
3	BTE30102	Electric Circuit Theory	3	1	0	40	60	100	4	PCC
4	BTE30103	Digital Electronics	3	0	0	40	60	100	3	PCC
5	BES00016	Applied Python Programming	3	1	0	40	60	100	4	ESC
6	BTE39104	Electric Circuit Theory Lab	0	0	2	40	60	100	1	PCC
7	BTE39105	Digital Electronics Lab	0	0	2	40	60	100	1	PCC
8	BES09017	Applied Python Programming Lab	0	0	2	40	60	100	1	ESC
9	BAU00002	Environmental Sciences	2	0	0	0	0	0	0	AUC
Total			18	3	6	320	480	800	22	

*MOOCs to earn additional credits for optional Honors/Minor Degree

SEMESTER – IV

Sl. No.	Course Code	Course Name	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	TEE			
1	BTE40106	Electrical Machine II	3	0	0	40	60	100	3	PCC
2	BTE40107	Electrical and Electronics Measurement	4	0	0	40	60	100	4	PCC
3	BTE40108	Analog Electronics	3	0	0	40	60	100	3	PCC
4	BTE40109	Power System I	3	0	0	40	60	100	3	PCC
5	BTE49110	Electrical Machine I Lab	0	0	3	40	60	100	1.5	PCC
6	BTE49111	Electrical and Electronics Measurement Lab	0	0	3	40	60	100	1.5	PCC
7	BTE49112	Analog Electronics Lab	0	0	3	40	60	100	1.5	PCC
8	BTE49113	Power System I Lab	0	0	3	40	60	100	1.5	PCC
TOTAL			13	0	12	320	480	800	19	

*MOOCs to earn additional credits for optional Honors/Minor Degree

SEMESTER – V

Sl. No.	Course Code	Course Name	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	TEE			
1	BHS00006	Operations Research	3	0	0	40	60	100	3	HSMC
2	BTE50114	Electrical Machine III	3	1	0	40	60	100	4	PCC
3	BTE50115	Control System I	3	1	0	40	60	100	4	PCC
4	BTE50116	Power Electronics	3	1	0	40	60	100	4	PCC
5	BTE59117	Electrical Machine II Lab	0	0	3	40	60	100	1.5	PCC
6	BTE59118	Control System I Lab	0	0	2	40	60	100	1	PCC
7	BTE59119	Power Electronics Lab	0	0	3	40	60	100	1.5	PCC
TOTAL			12	3	8	280	420	700	19	

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SEMESTER – VI

Sl. No.	Course Code	Course Name	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	TEE			
1	BHS00007	Project Management and Entrepreneurship	3	0	0	40	60	100	3	HSMC
2	BTE60120	Power System II	3	0	0	40	60	100	3	PCC
3	BTE60121	Microprocessor and Microcontroller	3	0	0	40	60	100	3	PCC
4	BTE60122	Control System II	3	0	0	40	60	100	3	PCC
5	BTE60201	A. HVDC Transmission B. Power Plant Engineering C. Power System Dynamics and Control D. MOOC	3	0	0	40	60	100	3	PEC
6	BTE60301	A. Data Structure and Algorithm B. Object-Oriented Programming C. Computer Organization and Architecture D. MOOC	3	0	0	40	60	100	3	OEC
7	BTE69123	Power System II Lab	0	0	3	40	60	100	1.5	PCC
8	BTE69124	Microprocessor and Microcontroller Lab	0	0	3	40	60	100	1.5	PCC
TOTAL			18	0	6	320	480	800	21	

*MOOCs to earn additional credits for optional Honors/Minor Degree

SEMESTER – VII

Sl. No.	Course Code	Course Name	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	TEE			
1	BTE70125	Utilization of Electric Power	3	0	0	40	60	100	3	PCC
2	BTE70126	Electric Drives	3	0	0	40	60	100	3	PCC
3	BTE70127	Renewable and Non-conventional Energy	3	0	0	40	60	100	3	PCC
4	BTE70202	A. Digital Control System B. Sensors and Transducers C. Electrical Machine Design D. MOOC	3	0	0	40	60	100	3	PEC
5	BTE70203	A. Electrical and Hybrid Vehicle B. Power Quality and FACTS C. Industrial Electrical systems D. MOOC	3	0	0	40	60	100	3	PEC
6	BTE70302	A. Digital Signal Processing B. Communication Engineering C. VLSI and Microelectronics D. MOOC	3	0	0	40	60	100	3	OEC
7	BTE70303	A. Artificial intelligence B. Internet of things C. Database Management Systems D. MOOC	3	0	0	40	60	100	3	OEC
8	BTE79128	Utilization of Electric Power Laboratory	0	0	3	40	60	100	1.5	PCC
9	BTE79129	Electric Drive Laboratory	0	0	3	40	60	100	1.5	PCC
TOTAL			21	0	6	360	540	900	24	

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SEMESTER – VIII

Sl. No.	Course Code	Course Name	L	T	P	Evaluation Scheme		Total	Credits	Course Type
						CIA	TEE			
1	BTE88101	Project/ Internship	0	0	0	40/0	60/100	100	12	PROJ
2	BTE88102	Grand Viva Voce	0	0	0	0	100	100	4	PROJ
TOTAL			0	0	0	40/0	160/200	200	16	

*MOOCs to earn additional credits for optional Honors/Minor Degree