GIRIJANANDA CHOWDHURY UNIVERSITY

Hathkhowapara, Azara, Guwahati-781017, Assam

School of Engineering & Technology

Department of Electrical Engineering

Semester I & Semester II

AY 2024-25 onwards

Semester I

Theory / Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit
					L	T	P	C
T/P	1.	BSC	BCH23111T	Chemistry	3	0	2	4
T	2.	BSC	BMA23111T	Mathematics - I	3	1	0	4
T/P	3.	ESC	BCS23101T	Programming for Problem Solving	2	0	4	4
T/P	4.	HSMC	BEN23102T	English for Technical Communication	2	0	2	3
T	5.	MC	UHV23001T	Universal Human Values	2	1	0	3
P	6.	ESC	BME23101P	Manufacturing Practice Workshop-I	0	0	2	1
P	7.	HSM C	JPN23101 P	Communicative Japanese/ Russian	0	0	2	1
p	8.	AUC	SYN23001P	Sports/Yoga/NSS/NCC/Activities	0	0	2	0
				Total	**12**	**3**	**14**	**20**

Semester II

Theory / Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit
					L	T	P	C
T/P	1.	BSC	BPY23111T	Physics	3	1	2	5
T	2.	BSC	BMA23112T	Mathematics - II	3	1	0	4
T	3.	BSC	BBI23101T	Biology for Engineers	2	0	0	2
T/P	4.	ESC	BEL23101T	Basic Electrical Engineering	3	1	2	5
P	5.	ESC	BCE23101P	Engineering Graphics and Design	1	0	4	3
P	6.	ESC	BME23102P	Manufacturing Practice Workshop-II	0	0	2	1
P	7.	ESC	BME23103P	Design Thinking & Idea Lab	0	0	2	1
				Total	**12**	**3**	**12**	**21**

***SYN23001 - SPORTS, SYN23002 - YOGA, SYN23003 - NSS, SYN23004 - NCC, SYN23005 - OTHER ACTIVITIES**

2026-27

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Semester III & Semester IV

	Sl. No	T/P	Type	Course code	Name of the Course	Hours per week			Credit
						L	T	P	C
3rd Semester	1	T	BSC	BMA25212T	Mathematics III	3	1	0	4
	2	T/P	PC	BEL23201T	Electrical Circuit Analysis	3	0	2	4
	3	T/P	PC	BEL25201T	Analog Devices and Photovoltaics	3	0	2	4
	4	T/P	PC	BEL23203T	Electrical Machines I	3	0	2	4
	5	T/P	PC	BEL24207T	Digital Electronics	2	0	2	3
	6	T	PC	BEL24204T	Electrical Instruments and Measurements	3	0	2	4
	7	T	VAC	BCH23112T	Environmental Science	2	0	0	2
						19	**1**	**10**	**25**

	Sl. No	T/P	Type	Course code	Name of the Course	Hours per week			Credit
						L	**T**	**P**	**C**
4th Semester	1	T/P	PC	BEL23205T	Electrical Machines II	3	0	2	4
	2	T	PC	BEL23206T	Power System I	3	0	2	4
	3	T	PC	BEL23208T	Principles of Signal & Systems	3	0	2	4
	4	T	PC	BEL23209T	Renewable Energy Engineering	3	0	2	4
	5	T	PC	BEL25302T	Power Electronics	3	0	2	4
	6	T	PC	BEL25321T	Electromagnetic Field Theory	3	0	0	3
	7	T	VAC		IKS	2	0	0	2
	8	P	SEC	BEL23210P	Mini Project	0	0	2	1
						20	**0**	**12**	**26**

NOTE 2-3 weeks mandatory academic internship need to be done in the 4th semester summer break and the report is to be submitted and evaluated in 5th semester.

31/7/26

BOS Member (Internal)

31/7/26 (Hiren K D Saikia)

BOS Member (External)

2021-22

GIRIJANANDA CHOWDHURY UNIVERSITY

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Semester V & Semester VI

	Sl. No	T/P	Type	Course code	Name of the Course	Hours per week			Credit
						L	T	P	C
5th Semester	1	T/P	PC	BEL25301T	Control System	3	0	2	4
	2	T/P	PC	BEL25303T	Power System II	3	0	2	4
	3	T/P	PC	BEL25304T	Information and Communication System	3	0	2	4
	4	T	PEC		Program Electives (PEC I)	3	0	0	3
	5	T/P	SEC	BEL23211T	Introduction to Machine Learning in Electrical Engineering	2	0	2	3
	6	T	MDC	BME24111T	Entrepreneurship and Start-up	3	0	0	3
	7	P	SEC	BEL25308P	Summer Internship Presentation	0	0	4	2
						17	**0**	**12**	**23**

	Sl. No	T/P	Type	Course code	Name of the Course	Hours per week			Credit
						L	T	P	C
6th Semester	1	T/P	PC	BEL25309T	Power System III	3	0	2	4
	2	T/P	SEC	BEL25310T	Microprocessor and Microcontroller	3	1	2	5
	3	T/P	PC	BEL25311T	Advanced Measurements and Instrumentation	3	0	2	4
	4	T/P	PC	BEL25312T	Electric Vehicle	3	0	2	4
	5	T	PEC II		Program Electives (PEC II)	3	0	0	3
	6	T	VAC	BEL25316T	Indian Constitution	2	0	0	2
						17	1	8	22

PEC I	BEL25305T	Electrical Safety
	BEL25306T	Solar Photovoltaic Technology
	BME23201T	Engineering Mechanics
	BME23303T	Mechatronics, Robotics and Control
PEC II	BEL26301T	Machine Intelligence and Learning
	BEL25313T	Operating Systems
	BEL25314T	Instrumentation for Solar Energy System

NOTE Summer Internship II / Minimum duration of 1 month internship in industry/ Design credit during the summer vacation and the report is to be submitted and evaluated in 7th semester.

31/7/26

BOS Member (Internal)

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BOS Member (External)

2026-27

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Semester VII & Semester VIII

Sl. No	T/P	Course Type	Course code	Name of the Course	Hours per week			Credit
					L	T	P	C
1	T	PEC	BEL2642xT	Program Elective Course-1	3	0	0	3
2	T	PEC	BEL2642xT	Program Elective Course-2	3	0	0	3
3	T	MDC	BEL2644xT	Multidisciplinary Course-1	3	0	0	3
4	T	VAC		Accountancy	2	0	0	2
5	P	PCC	BEL26401P	Project-1	0	0	12	6
6	P	PCC	BEL26402P	Internship-2	0	0	4	2
					11	0	16	19

PEC 1	BEL26420T	Multivariable Control
	BEL26421T	Optimal Control Theory
	BEL26422T	Power System Protection
	BEL26423T	Power System Reliability

PEC 2	BEL26424T	Illumination Engineering
	BEL26425T	Sensors and Actuators
	BEL26426T	Robotics and Automation
	BEL26427T	HVDC and FACTS
	BEL26428T	Industrial Drives

MDC-1	BEL26441T	Biomedical Engineering
	BEL26442T	Smart Urban Planning
	BEL26443T	Digital Image Processing
	BEL26444T	I.C. Technology
	BEL26445T	Speech Processing
	BEL26446T	Computer Networks
	BEL26447T	Sustainable Energy Policy
	BEL26448T	Operation Research
	BEL26449T	Smart Grid Technology

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Semester VIII

Sl. No	T/P	Course Type	Course code	Name of the Course	Hours per week			Credit
					L	T	P	C
1	P	PCC	BEL26403P	Project-2 Design Major Project or Start-up or One year Research in Industry/ other Academic or Research Institute	0	0	32	16

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31/7/26

BOS Member (External)