

# Program Structure for B.Tech.(ECE)-Batch 2024

## Semester I

Course Type	Course Code	Course Title	L	T	P/S	Credits
BSC 1	MTL BS101	Engineering Mathematics-I	3	1	0	4
BSC 2	BTL BS101	Applied Chemistry	3	0	0	3
BSC 2	BTP BS101	Applied Chemistry Lab	0	0	2	1
ESC 1	CSL ES101	Introduction to C Programming	3	0	0	3
ESC 1	CSP ES101	C Programming Lab	0	0	2	1
ESC 2	EEL ES101	Fundamental of Electrical Engineering	3	0	0	3
ESC 2	EEP ES101	Fundamental of Electrical Engineering Lab	0	0	2	1
SEC 1	MEM SE101	Engineering Workshop	1	0	2	2
AEC 1 / VAC 1		Ability Enhancement /Value Added Course				2
		<b>Total Credits</b>				<b>20</b>

## Semester II

Course Type	Course Code	Course Title	L	T	P/S	Credits
BSC 3	MTL BS102	Engineering Mathematics-II	3	1	0	4
BSC 4	PHL BS102	Engineering Physics	3	0	0	3
BSC 4	PHP BS102	Engineering Physics Lab	0	0	2	1
DCC 1	ECL DC106	Solid State Devices	3	0	0	3
DCC 1	ECP DC106	Solid State Devices Lab	0	0	2	1
DCC 2	ECL DC104	Network Analysis & Synthesis	3	1	0	4
SEC 2	MEM SE102	Engineering Graphics with CAD	1	0	2	2
AEC 2		Ability Enhancement Course				2
VAC 2		Value Added Course				2
MAC 1	PCN MA102	Universal Human Values-II	2	0	0	0
		<b>Total Credits</b>				<b>22</b>

## Semester III

Course Type	Course Code	Course Title	L	T	P/S	Credits
BSC 5	BTL BS201	Introduction to Biology for Engineers	3	0	0	3
ESC 3	ECL ES201	Numerical Methods	3	0	0	3
ESC 3	ECP ES201	Numerical Methods Lab	0	0	2	1
DCC 3	ECL DC203	Digital Electronics	3	0	0	3
DCC 3	ECP DC203	Digital Electronics Lab.	0	0	2	1
DCC 4	ECL DC205	Electronics Devices and Circuits	3	0	0	3
DCC 4	ECP DC205	Electronic Device and Circuits Lab	0	0	2	1
DCC 5	ECL DC207	Electromagnetic Field Theory	3	1	0	4
SEC 3	ECM SE201	MATLAB Programming	1	0	2	2
PR	ECI PR201	Summer Internship-I				1
VAC 3		Value Added Course				2
		<b>Total Credits</b>				<b>24</b>

### Semester IV

Course Type	Course Code	Course Title	L	T	P/S	Credits
DCC 6	ECL DC202	Linear Integrated Circuits Applications	3	0	0	3
DCC 6	ECP DC202	Linear Integrated Circuits Applications Lab	0	0	2	1
DCC 7	ECL DC204	Analog Communication	3	0	0	3
DCC 7	ECP DC204	Analog Communication Lab	0	0	2	1
DCC 8	ECL DC206	Microprocessor and Interfacing	3	0	0	3
DCC 8	ECP DC206	Microprocessor and Interfacing lab	0	0	2	1
DCC 9	ECL DC208	Control Systems	3	0	0	3
DCC 9	ECP DC208	Control Systems Lab	0	0	2	1
DCC 10	ECL DC210	Signals & Systems	3	1	0	4
VAC 4	BTL VA202	Environmental Science & Education	2	0	0	2
		<b>Total Credits</b>				<b>22</b>

### Semester V

Course Type	Course Code	Course Title	L	T	P/S	Credits
DCC 11	ECL DC301	Digital Communication Engineering	3	0	0	3
DCC 11	ECP DC301	Digital Communication Lab	0	0	2	1
DCC 12	ECL DC303	Digital Signal Processing	3	0	0	3
DCC 12	ECP DC303	Digital Signal Processing Lab	0	0	2	1
DCC 13	ECL DC305	VLSI Design	3	0	0	3
DCC 13	ECP DC305	VLSI Lab	0	0	2	1
DEC 1		School Elective – I	3	1/0	0/2	4
DEC 2 / GEC 1		School Elective – II/Generic Elective - I	3	1/0	0/2	4
PR	ECI PR301	Summer Internship-II				1
DCC	ECD PR301	Project Work-1				2
		<b>Total Credits</b>				<b>23</b>

### Semester VI

Course Type	Course Code	Course Title	L	T	P/S	Credits
DCC 14	ECL DC302	Microwave Engineering	3	0	0	3
DCC 14	ECP DC302	Microwave Engineering Lab	0	0	2	1
DCC 15	ECL DC304	AI & ML in Electronics Engineering	3	0	0	3
DCC 15	ECP DC304	AI & ML Lab	0	0	2	1
DEC 3	ECX DEXXX	School Elective - III	3	1/0	0/2	4
DEC 4 / GEC 2	ECX DEXXX / ECX GEXXX	School Elective – IV/Generic Elective -II	3	1/0	0/2	4
AEC		Management / Entrepreneurship/Economy	3	0	0	3
DCC	ECD PR302	Project Work –II				2
MAC 2	PCN MA302	Indian Knowledge System	2	0	0	NC
		<b>Total Credits</b>				<b>21</b>

### Semester VII

Course Type	Course Code	Course Title	L	T	P/S	Credits
<b>DCC 16</b>	ECL DC 401	Mobile Communication	3	1	0	4
<b>DEC 5</b>	ECX DEXXX	School Elective – V	3	1/0	0/2	4
<b>DEC 6 / GEC 3</b>	ECX DEXXX / ECX GEXXX	School Elective – VI/ Generic Elective – III	3	1/0	0/2	4
<b>PR</b>	ECI PR401	Summer Internship – III				2
<b>DCC/PR</b>	ECD PR401	Project Work –III				4
		<b>Total Credits</b>				<b>18</b>

### Semester VIII

Course Type	Course Code	Course Title	L	T	P/S	Credits
<b>DCC/PR</b>	ECD PR402/ ECI PR402	Major Project / Internship (Industrial or In-house Project)				10
		<b>Total Credits</b>				<b>10</b>

## **Major Specialization to be offered by SoECE**

Basket 1: VLSI Design

Basket 2: Microwave and Millimeter Wave Technology

Basket 3: Multimedia Technology

Basket 4: Embedded Systems & Networks

## **Minor Specialization**

Basket 1: VLSI Design (Only for EE, M.Sc. Physics, B.Sc Physic 4 Year UG)

Basket 2. Minor Specialization:- Multimedia Technologies ( for Sciences/ Maths/ MBA/ Econ/BBA students)

Basket 3: Embedded Systems & Networks

Basket 4: Microwave and Millimeter Wave Technology