

Syllabus Index

Programme: **BSc Electronics with computer technology & Computer Science
(Double Major)**

L — Lecture, T — Tutorial, P — Practical/Practicum, O — Others

SEMESTER: 1

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG1DSCECC100	Emerging Electronics	DSC A	4	5	3		2	
MG1DSCECC101	Art of Computing and Problem Solving	DSC B	4	5	3		2	
MG1DSCECC102	Computer Fundamentals	DSC B	4	5	3		2	
MG1MDCECC100	Creative Robotics	MDC	3	4	2		2	

SEMESTER: 2

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG2DSCECC100	Essential Concepts in Digital Electronics	DSC A	4	5	3		2	
MG2DSCECC101	Python Programming	DSC B	4	5	3		2	
MG2DSCECC102	Fundamentals of OS and Linux	DSC B	4	5	3		2	
MG2MDCECC100	IOT based smart farming	MDC	3	4	2		2	

SEMESTER: 3

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG3DSCECC 200	Analog Electronics	DSC A	4	5	3		2	
MG3DSECC200	Programming in C	DSE	4	5	3		2	
MG3DSCECC201	Database Management Systems	DSC B	4	5	3		2	
MG3DSCECC202	Networking Fundamentals	DSC B	4	4	4			
MG3MDCECC 200	Cloud Computing Essentials	MDC	3	3	3			
MG3VACECC 200	Green Electronics	VAC	3	3	3			

SEMESTER: 4

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG4DSECC 200	IoT System Design	DSE	4	5	3		2	
MG4DSCECC 200	Electronics Service Technology	DSC A	4	4	4			
MG4DSCECC 201	OOPs Concepts Using JAVA	DSC B	4	5	3		2	
MG4DSECC 201	Mobile App Development	DSE	4	5	3		2	
MG4SECECC 200	Solar Technology and Applications	SEC	3	3	3			
MG4VACECC 200	Environmental monitoring using sensors	VAC	3	3	3			
MG4INTECC 200	INTERNSHIP	INT						

SEMESTER: 5

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG5DSCECC 300	Digital Design using Verilog	DSC A	4	5	3		2	
MG5DSCECC 300	Artificial Intelligence & Machine Learning	DSC A	4	5	3		2	
MG5DSECC 301	Computer Assembling and Maintenance	DSE	4	4	4			
MG5DSECC 301	Industrial Automation	DSE	4	4	4			
MG5DSCECC302	Software Engineering	DSC B	4	4	4			
MG5SECECC 300	Office automation and Content Creation	SEC	3	3	3			

SEMESTER: 6

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG6DSCECC 300	Cloud Computing and IoT	DSC A	4	5	3		2	
MG6DSECC 300	Computer Networking	DSE	4	5	3		2	
MG6DSECC 301	Edge Computing	DSE	4	4	4			
MG6DSECC 302	Big Data Analytics	DSE	4	4	4			

MG6SECECC 300	CCTV Installation and Maintenance	SEC	3	4	2		2	
MG6VACECC 300	Environmental Awareness and Human Rights	VAC	3	3	3			

SEMESTER: 7

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG7DCCECC 400	Pytorch for Deep Learning	DSC A	4	5	3		2	
MG7DCCECC 401	Laser and its Applications	DSC A	4	4	4			
MG7DCCECC 402	RFID and Applications	DSC A	4	4	4			
MG7DCEECC400	Wireless Network Security	DCE A	4	4	4			
MG7DCEECC 401	Deep Learning	DCE A	4	4	4			
MG7DCEECC 402	MEMS and NEMS	DCE A	4	4	4			
MG7DCEECC 403	Advanced Operating System Concepts	DCE B	4	4	4			
MG7DCEECC 404	Digital Image Computing	DCE B	4	4	4			
MG7DCEECC 405	Big Data Management Using R	DCE B	4	4	4			

SEMESTER: 8

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG8DCCECC400	Digital Signal Processing	DCC	4	5	3		2	
MG8DCCECC 401	Natural Language Processing with Transformer in Python	DCC	4	5	3		2	
MG8DCEECC400	Java Programming	DCE A	4	5	3		2	
MG8DCEECC 401	Digital Image Processing	DCE A	4	5	3		2	
MG8DCEECC 402	Machine Learning from Scratch	DCE A	4	5	3		2	
MG8DCEECC 403	Neural Networks and Deep Learning	DCE B	4	5	3		2	
MG8DCEECC 404	Pattern Recognition	DCE B	4	5	3		2	
MG8DCEECC 405	Generative AI	DCE B	4	5	3		2	
MG8PROJECT 400	Research project/Dissertation		12					