

CURRICULUM

YEAR 1

Semester 1

Course Component	Subject Code	Course Name	Credits
BSC	22MATS11	Mathematics for CSE Stream-I	4
ASC(IC)	22PHYS12	Physics for CSE stream	4
ESC	22POP13	Principles of Programming Using C	3
ESC-I	22ESC14x	Engineering Science Course-I	3
ETC-I	22ETC15x	Emerging Technology Course-I	3
PLC-I	22PLC15x	Programming Languages Course-I	3
AEC	22ENG16	Communicative English	1
HSMC	22KSK17/ 22KBK17	Samskrutika Kannada/ Balake Kannada	1
HSMC	20ICO17	Indian Constitution	1
AEC/SDC	22IDT18	Innovation and Design Thinking	1
AEC/SDC	22SFH18	Scientific Foundations of Health	1
ESC	22ESC141	Introduction to Civil Engineering	3
ESC	22ESC142	Introduction to Electrical Engineering	3
ESC	22ESC143	Introduction to Electronics Engineering	3
BSC	22ESC144	Introduction to Mechanical Engineering	3
ESC	22ESC145	Introduction to C Programming	3

YEAR 2

Semester 3

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Course Component	Subject Code	Course Name	Credits
PCC/BSC	BCS301	Mathematics for Computer Science	4
IPCC	BCS302	Digital Design & Computer Organization	4
IPCC	BCS303	Operating Systems	4
PCC	BCS304	Data Structures and Application	3
PCCL	BCSL305	Data Structures Lab	1
ESC	BCS306x	ESC/ETC/PLC	3
UHV	BSCK307	Social Connect and Responsibility	1

AEC/ SEC	BCS358x	Ability Enhancement Course/Skill Enhancement Course - III	1
MC	BNSK359	National Service Scheme (NSS)	1
MC	BPEK359	Physical Education (PE) (Sports and Athletics)	1
MC	BYOK359	Yoga	1

Semester 4

Course Component	Subject Code	Course Name	Credits
PCC/BSC	BCS401	Analysis & Design of Algorithms	3
IPCC	BCS402	Microcontrollers	4
IPCC	BCS403	Database Management Systems	4
PCCL	BCSL404	Analysis & Design of Algorithms Lab	1
ESC	BCS405x	ESC/ETC/PLC	3
AEC/ SEC	BCS456x	Ability Enhancement Course/Skill Enhancement Course- IV	1
BSC	BBOK407	Biology For Engineers	2
UHV	BUHK408	Universal human values course	1
MC	BNSK459	National Service Scheme (NSS)	1
MC	BPEK459	Physical Education (PE) (Sports and Athletics)	1
MC	BYOK459	Yoga	0

YEAR 3

Semester 5

Course Component	Subject Code	Course Name	Credits
BSC	21CS51	Automata Theory and compiler Design	3
IPCC	21CS52	Computer Networks	4
PCC	21CS53	Database Management Systems	3
PCC	21CS54	Artificial Intelligence and Machine Learning	3
PCC	21CSL55	Database Management Systems Laboratory with Mini Project	1
AEC	21XX56	Research Methodology & Intellectual Property Rights	2
HSMC	21CIV57	Environmental Studies	1
AEC	21CSL581	Angular JS and Node JS	1
AEC	21CS582	C# and .Net Framework	1

Semester 6

Course Component	Subject Code	Course Name	Credits
HSMC	21CS61	Software Engineering & Project Management	3
IPCC	21CS62	Fullstack Development	4
PCC	21CS63	Computer Graphics and Image Processing Laboratory	3
PEC	21CS641	Agile Technology	3
PEC	21CS642	Advanced JAVA Programming	
PEC	21CS643	Advanced Computer Architecture	
PEC	21CS644	Data science and Visualization	
OEC	21CS651	Introduction to Data Structures	3
OEC	21CS652	Introduction to Database Management Systems	
OEC	21CS653	Introduction to Cyber Security	
OEC	21CS654	Programming in JAVA	
PCC	21CSL66	Computer Graphics and Image Processing Laboratory	1
MP	21CSMP67	Mini Project	2
INT	21INT68	Innovation/Entrepreneurship /Societal Internship	3
YEAR 4			

Semester 7

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Course Component	Subject Code	Course Name	Credits
PCC	18CS71	Artificial Intelligence and Machine Learning	4
PCC	18CS72	Big Data Analytics	4
PEC	18CS731	Software Architecture and Design Patterns	3
PEC	18CS732	High Performance Computing	
PEC	18CS733	Advanced Computer Architecture	
PEC	18CS734	User Interface Design	
PEC	18CS741	Digital Image Processing	3
PEC	18CS742	Network management	
PEC	18CS743	Natural Language Processing	
PEC	18CS744	Cryptography	
PEC	18CS745	Robotic Process Automation Design & Development	3
OEC	18CS751	Introduction to Big Data Analytics	
OEC	18CS752	Python Application Programming	
OEC	18CS753	Introduction to Artificial Intelligence	
OEC	18CS754	Introduction to Dot Net framework for Application Development	2
PCC	18CSL76	Artificial Intelligence and Machine Learning Laboratory	
Project	18CSP77	Project Work Phase – 1	1

Semester 8

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Course Component	Subject Code	Course Name	Credits
PCC	18CS81	Internet of Things	3
PEC	18CS821	Mobile Computing	
PEC	18CS822	Storage Area Networks	3
PEC	18CS823	NoSQL Database	
PEC	18CS824	Multicore Architecture and Programming	
Project	18CSP83	Project Work Phase – 2	8
Seminar	18CSS84	Technical Seminar	1
INT	18CSI85	Internship	3