

Curriculum for Diploma in Computer Science & Information Technology

FIRST SEMESTER

S. No.	Course			Contact Hours				Credits
	Type	Course Code	Course Title	L	T	P	Total	
1	BS	24D11MA111	Applied Mathematics-I	2	1	0	3	3
2	BS	24D11PH111	Applied Physics-I	2	1	0	3	3
3	BS	24D11BT111	Applied Chemistry	2	1	0	3	3
4	HSS	24D11HS111	Communication Skills in English	2	0	0	2	2
5	ES	24D11CS111	Fundamentals of computers and computational thinking using Python	2	1	0	3	3
6	ES	24D15EC111	Engineering Graphics	0	0	3	3	1.5
7	BS	24D15PH111	Applied Physics Lab-I	0	0	2	2	1
8	BS	24D15BT111	Applied Chemistry Lab	0	0	2	2	1
9	ES	24D15CS111	Fundamentals of computers and computational thinking using Python Lab	0	0	2	2	1
10	HSS	24D15HS111	Communication Skills in English Lab	0	0	2	2	1
Total							25	19.5

SECOND SEMESTER

S. No.	Course			Contact Hours				Credits
	Type	Course Code	Course Title	L	T	P	Total	
1	BS	24D11MA112	Applied Mathematics-II	2	1	0	3	3
2	BS	24D11PH112	Applied Physics-II	2	1	0	3	3
3	ES	24D11CS112	Fundamentals of Programming	2	1	0	3	3
4	ES	24D11EC112	Fundamentals of Electrical and Electronics Engineering	2	1	0	3	3
5	AC	24D11BT111	Environmental Science	2	0	0	2	0
6	BS	24D15PH112	Applied Physics -II Lab	0	0	2	2	1
7	ES	24D15CS112	Programming Lab	0	0	2	2	1
8	ES	24D15EC112	Fundamentals of Electrical and Electronics Engineering Lab	0	0	2	2	1
9	ES	24D15EC113	Engineering Workshop Practice	0	0	3	3	1.5
10	HSS	24D11HS112	Basic Technical Writing	2	0	0	2	2
Total							25	18.5

THIRD SEMESTER

S. No.	Course			Contact Hours				Credits
	Type	Course Code	Course Title	L	T	P	Total	
1	HSS	TBD	Seminar & Report Writing	2	0	0	2	2
2	PC	TBD	Computer Architecture Basics	3	1	0	4	4
3	PC	TBD	Web Technology	3	1	0	4	4
4	PC	TBD	Multimedia and Animation	2	1	0	3	3
5	PC	TBD	Programming using C	3	1	0	4	4
6	PC	TBD	Web Development Lab	0	0	2	2	1
7	PC	TBD	C Programming Lab	0	0	4	4	2
8	PC	TBD	Multimedia Lab	0	0	2	2	1
9	PC	TBD	IT Infrastructure Lab	0	0	2	2	1
Total							27	22

FOURTH SEMESTER

S. No.	Course			Contact Hours				Credits
	Type	Course Code	Course Title	L	T	P	Total	
1	PC	TBD	Object Oriented Analysis and Design using C++	3	1	0	4	4
2	PC	TBD	Fundamentals of Data Structure	3	1	0	4	4
3	PC	TBD	Database Basics	3	1	0	4	4
4	PE	TBD	Elective – I	3	0	0	3	3
5	PC	TBD	Data Structure Lab	0	0	2	2	1
6	PC	TBD	C++ Programming Lab	0	0	2	2	1
7	(P,S,I)	TBD	Minor Project	0	0	8	8	4
Total							27	21

FIFTH SEMESTER

S. No.	Course			Contact Hours				Credits
	Type	Course Code	Course Title	L	T	P	Total	
1	PC	TBD	Fundamentals of Algorithms	3	0	0	3	3
2	PC	TBD	System Analysis Design and Engineering	2	1	0	3	3
3	OE	TBD	Open Elective – I	3	0	0	3	3
4	PE	TBD	Elective – II	3	0	0	3	3
5	PE	TBD	Elective – III	3	0	0	3	3
6	PC	TBD	Algorithm Lab	0	0	2	2	1
7	PC	TBD	Java Programming Lab	0	0	2	2	1

8	(P,S,I)	TBD	Major Project – I	0	0	8	8	4
9	(P,S,I)	TBD	Industrial Training	Qualifying				0
Total						27	21	

SIXTH SEMESTER

S. No.	Course			Contact Hours				Credits
	Type	Course Code	Course Title	L	T	P	Total	
1	OE	TBD	Open Elective – II	3	0	0	3	3
2	PC	TBD	Android Programming	2	1	0	3	3
3	PE	TBD	Elective – IV	3	0	0	3	3
4	PE	TBD	Elective – V	3	0	0	3	3
5	(P,S,I)	TBD	Major Project – II	0	0	12	12	6
Total							24	18

List of Electives

Elective 1 (DE-1), Elective 2 (DE-2), and Elective 4 (DE-4) will be based on specialization in 3 baskets viz. Artificial Intelligence (AI), Data Analytics and Cyber Security.

Elective	Artificial Intelligence (AI)	Data Analytics	Cyber Security
Elective 1 (DE-1)	Fundamentals of Artificial Intelligence	Fundamentals of Data Science	Fundamentals of Cryptography
Elective 2 (DE-2)	Python Programming	R Programming	Cyber Security
Elective 4 (DE-4)	Computer Vision	Computer Vision	Ethical Hacking

List of subjects for Elective 3 (DE-3)

Elective 3 (DE-3)	IoT and Smart System	Cloud Computing	Generative AI
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List of subjects for Elective 5 (DE-5)

Elective 5 (DE-5)	Computer Graphics	Data Visualization using Dashboard	Office Automation
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*Elective list is subject to update time to time.