

DAYANANDA SAGAR UNIVERSITY

SCHOOL OF ENGINEERING



**SCHEME & SYLLABUS
FOR
BACHELOR OF TECHNOLOGY (B.Tech)
COMPUTER SCIENCE & ENGINEERING
(DATA SCIENCE)
(CSE-DS)**

(With effect from 2021-22)

SCHEME - B.TECH - 2021-22 ONWARDS**I SEM - CHEMISTRY CYCLE**

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSE CODE
1	101-105 & 121-123	21EN1101	LINEAR ALGEBRA AND CALCULUS	CR	3	1	-	-	4	*	***
2	101-105 & 121-123	21EN1102	ENGINEERING CHEMISTRY	CR	3	-	2	-	4	*	***
3	101-105 & 121-123	21EN1103	BASIC ELECTRICAL ENGINEERING	CR	3	-	-	-	3	*	***
4	101-105 & 121-123	21EN1104	ELEMENTS OF MECHANICAL ENGINEERING	CR	2	-	2	-	3	*	***
5	101-105 & 121-123	21EN1105	FUNDAMENTALS OF PROGRAMMING	CR	3	-	4	-	5	*	***
6	101-105 & 121-123	21EN1106	ENVIRONMENTAL SCIENCES	CR	2	-	-	-	2	*	***
7	101-105 & 121-123	21EN1107	KANNADA KALI/MANASU	CR	1	-	-	-	1	*	***
					17	01	08	--	22		

CR – Credit, AU – Audit, L – Lecture, T – Tutorial, P – Practical, S/P – Seminar/Project, C – No. of Credits

SCHEME - B.TECH - 2021-22 ONWARDS
I SEM - PHYSICS CYCLE

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSE CODE
1	101-105 & 121-123	21EN1101	LINEAR ALGEBRA AND CALCULUS	CR	3	1	-	-	4	*	***
2	101-105 & 121-123	21EN1108	ENGINEERING PHYSICS	CR	3	-	2	-	4	*	***
3	101-105 & 121-123	21EN1109	BASIC ELECTRONICS	CR	3	-	2	-	4	*	***
4	101-105 & 121-123	21EN1110	ENGINEERING GRAPHICS AND DESIGN	CR	1	-	4	-	3	*	***
5	101-105 & 121-123	21EN1111	ENGINEERING MECHANICS	CR	2	-	-	-	2	*	***
6	101-105 & 121-123	21EN1112	BIOLOGICAL SCIENCES	CR	2	-	-	-	2	*	***
7	101-105 & 121-123	21EN1113	TECHNICAL COMMUNICATION	CR	2	-	-	-	2	*	***
8	101-105 & 121-123	21EN1114	DESIGN THINKING	CR	-	-	2	-	1	*	***
					16	01	10	--	22		
9	101-105 & 121-123	21AU0004	CONSTITUTION OF INDIA AND ETHICS	AU	02	--	--	--	--	*	***

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SCHEME - B.TECH – 2021-22 ONWARDS**II SEM - CHEMISTRY CYCLE**

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSE CODE
1	101-105 & 121-123	21EN1201	TRANSFORMS AND DIFFERENTIAL EQUATIONS	CR	3	1	-	-	4	*	***
2	101-105 & 121-123	21EN1102	ENGINEERING CHEMISTRY	CR	3	-	2	-	4	*	***
3	101-105 & 121-123	21EN1103	BASIC ELECTRICAL ENGINEERING	CR	3	-	-	-	3	*	***
4	101-105 & 121-123	21EN1104	ELEMENTS OF MECHANICAL ENGINEERING	CR	2	-	2	-	3	*	***
5	101-105 & 121-123	21EN1105	FUNDAMENTALS OF PROGRAMMING	CR	3	-	4	-	5	*	***
6	101-105 & 121-123	21EN1106	ENVIRONMENTAL SCIENCES	CR	2	-	-	-	2	*	***
7	101-105 & 121-123	21EN1107	KANNADA KALI/MANASU	CR	1	-	-	-	1	*	***
					17	01	08	--	22		

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SCHEME - B.TECH - 2021-22 ONWARDS**II SEM - PHYSICS CYCLE**

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSE CODE
1	101-105 & 121-123	21EN1201	TRANSFORMS AND DIFFERENTIAL EQUATIONS	CR	3	1	-	-	4	*	***
2	101-105 & 121-123	21EN1108	ENGINEERING PHYSICS	CR	3	-	2	-	4	*	***
3	101-105 & 121-123	21EN1109	BASIC ELECTRONICS	CR	3	-	2	-	4	*	***
4	101-105 & 121-123	21EN1110	ENGINEERING GRAPHICS AND DESIGN	CR	1	-	4	-	3	*	***
5	101-105 & 121-123	21EN1111	ENGINEERING MECHANICS	CR	2	-	-	-	2	*	***
6	101-105 & 121-123	21EN1112	BIOLOGICAL SCIENCES	CR	2	-	-	-	2	*	***
7	101-105 & 121-123	21EN1113	TECHNICAL COMMUNICATION	CR	2	-	-	-	2	*	***
8	101-105 & 121-123	21EN1114	DESIGN THINKING	CR	-	-	2	-	1	*	***
					16	01	10	--	22		
9	101-105 & 121-123	21AU0004	CONSTITUTION OF INDIA AND ETHICS	AU	02	--	--	--	--	*	***

CR – Credit, AU – Audit, L – Lecture, T – Tutorial, P – Practical, S/P – Seminar/Project, C – No. of Credits

SCHEME - B.TECH – 2022-23 ONWARDS

III SEM - COMPUTER SCIENCE & ENGINEERING (DATA SCIENCE)

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSE CODE
1	122	21CS2301	DISCRETE MATHEMATICAL STRUCTURES	CR	3	-	-	-	3	*	***
2	122	21CS2302	DATA STRUCTURES	CR	3	-	-	-	3	I/II	***
3	122	21CS2303	DIGITAL ELECTRONICS & LOGIC DESIGN	CR	3	-	-	-	3	*	***
4	122	21CS2304	FULL STACK DEVELOPMENT	CR	2	-	2	-	3	*	***
5	122	21DS2301	DATA WAREHOUSE AND KNOWLEDGE MINING	CR	3	-	-	-	3	*	***
6	122	21DS2302	DATA ANALYTICS AND EXPLORATION	CR	3	-	-	-	3	*	***
7	122	21CS2307	DATA STRUCTURES LAB	CR	-	-	2	-	1	*	***
8	122	21CS2308	DIGITAL ELECTRONICS & LOGIC DESIGN LAB	CR	-	-	2	-	1	*	***
9	122	21CS2309	MANAGEMENT AND ENTREPRENEURSHIP	CR	2	-	-	-	2	*	***
10	122	21CS2310	LIBERAL STUDIES – I	CR	1	-	-	-	1	*	***
					20	-	06	00	23		

CR – CREDIT, AU – AUDIT, L – LECTURE, T – TUTORIAL, P – PRACTICAL, S/P – SEMINAR/PROJECT, C – NO. OF CREDITS

SCHEME - B.TECH – 2022-23 ONWARDS

IV SEM - COMPUTER SCIENCE & ENGINEERING (DATA SCIENCE)

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	CR / AU	SCHEME OF TEACHING					PREREQUISITE	
					L	T	P	S/P	C	SEM	COURSECODE
1	122	21CS2401	PROBABILITY AND STATISTICS	CR	3	-	-	-	3	*	***
2	122	21CS2402	DESIGN AND ANALYSIS OF ALGORITHMS	CR	3	-	-	-	3	*	***
3	122	21CS2403	PRINCIPLES OF MICROPROCESSORS AND COMPUTER ORGANIZATION	CR	4	-	-	-	4	*	***
4	122	21CS2404	FINITE AUTOMATA & FORMAL LANGUAGES	CR	3	-	-	2	4	*	***
5	122	21CS2405	SOFTWARE ENGINEERING AND PROJECT MANAGEMENT	CR	3	-	-	-	3	*	***
6	122	21DS2401	FUNDAMENTALS OF DATA SCIENCE	CR	3	-	-	-	3	*	***
7	122	21CS2407	DESIGN AND ANALYSIS OF ALGORITHMS LAB	CR	-	-	2	-	1	*	***
	122	21DS2402	DATA SCIENCE LAB	CR	-	-	2	-	1		
8	122	21CS2409	SPECIAL TOPICS – I	CR	-	-	-	4	2	*	***
9	122	21CS2410	LIBERAL STUDIES – II	CR	1	-	-	-	1	*	***
					20	-	04	06	25		

CR – CREDIT, AU – AUDIT, L – LECTURE, T – TUTORIAL, P – PRACTICAL, S/P – SEMINAR/PROJEC