SARDAR PATEL UNIVERSITY
NEP Structure B.Sc. Semester: II
(Under Choice Based Credit Scheme)
Syllabus with Effect from: 2023

Course Type	Course Code	Name of Course	T / P	Credit	Contact Hours Per Week	Exam Duration in hrs	Component of Marks		
							Internal	External	Total
Ability Enhancement Course									
	US02AEENG01	Functional English	P	2	2	2	25	25	50
Major Course (Any One Subject)									
Chemistry	US02MACHE01	General Chemistry-II	T	4	4	2:30	50	50	100
	US02MACHE02	Chemistry Practical-II	P	4	8	3	50	50	100
Physics	US02MAPHY01	Vector Algebra, Relativity, Network Analysis and Basic Electronics	T	4	4	2:30	50	50	100
	US02MAPHY02	Physics Practical	P	4	8	3	50	50	100
Zoology	US02MAZOO01	Animal Diversity and Physiology-2	T	4	4	2:30	50	50	100
	US02MAZOO02	Zoology Practical	P	4	8	3	50	50	100
Bio Chemistry	US02MABIC01	Molecules of Life	T	4	4	2:30	50	50	100
	US02MABIC02	Biochemistry Practical	P	4	8	3	50	50	100
Botany	US02MABOT01	Biodiversity (Microbes, Algae, Fungi and Archegoniate)	T	4	4	2:30	50	50	100
	US02MABOT02	Botany Practical	P	4	8	3	50	50	100
Biotechnology	US02MABTE01	Biomolecules and Classical Genetics	T	4	4	2:30	50	50	100
	US02MABTE02	Biotechnology Practical	P	4	8	3	50	50	100
Microbiology	US02MAMIC01	Fundamentals of Microbiology	T	4	4	2:30	50	50	100
	US02MAMIC01	Microbiology Practical	P	4	8	3	50	50	100
Industrial Chemistry	US02MAICH01	Process Calculation and Engineering Equipment	T	4	4	2:30	50	50	100
	US02MAICH02	Industrial Chemistry Practical	P	4	8	3	50	50	100

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Industrial Chemistry Vocational	US02MAICV01	Industrial Chemistry	T	4	4	2:30	50	50	100
	US02MAICV02	Practical	P	4	8	3	50	50	100
Mathematics	US02MAMTH01	Algebra	T	4	4	2:30	50	50	100
	US02MAMTH02	Problems and Exercises in Algebra	P	4	8	3	50	50	100
Electronics and Communication	US02MAELC01	Electronics Devices and Circuits	T	4	4	2:30	50	50	100
	US02MAELC02	Electronics and Communication Practical	P	4	8	3	50	50	100
Computer Science	US02MACSC01	Computer Fundamentals - II	T	4	4	2:30	50	50	100
	US02MACSC02	Practical Based on US02MACSC01	P	4	8	3	50	50	100
Electronics	US02MAELE01	AC Fundamentals	T	4	4	2:30	50	50	100
	US02MAELE02	Electronics Practicals.	P	4	8	3	50	50	100
Minor Course (Any One Subject)									
Chemistry	US02MICHE01	Basic Chemistry - II	T	2	2	1:30	25	25	50
	US02MICHE02	Chemistry Practical-I	P	2	4	2	25	25	50
Physics	US02MIPHY01	Network Theory, AC Bridges and Basic Electronics	T	2	2	1:30	25	25	50
	US02MIPHY02	Physics Practical	P	2	4	2	25	25	50
Zoology	US02MIZOO01	Chordate Diversity	T	2	2	1:30	25	25	50
	US02MIZOO02	Zoology Practical	P	2	4	2	25	25	50
Biochemistry	US02MIBIC01	Fundamentals of Biochemistry-II	T	2	2	1:30	25	25	50
	US02MIBIC02	Biochemistry Practical	P	2	4	2	25	25	50
Botany	US02MIBOT01	Introduction to Archegoniate	T	2	2	1:30	25	25	50
	US02MIBOT02	Botany Practical	P	2	4	2	25	25	50

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Biotechnology	US02MIBTE01	Biomolecules	T	2	2	1:30	25	25	50
	US02MIBTE02	Biotechnology Practical	P	2	4	2	25	25	50
Microbiology	US02MIMIC01	Fundamentals of Microbiology	T	2	2	1:30	25	25	50
	US02MIMIC02	Practicals: Based on US02MIMIC01	P	2	4	2	25	25	50
Industrial Chemistry	US02MIICH01	Introduction to Industrial Chemistry -II	T	2	2	1:30	25	25	50
	US02MIICH02	Industrial Chemistry Practical	P	2	4	2	25	25	50
Industrial Chemistry Vocational	US02MIICV01	Introduction to Chemical Plant Utilities	T	2	2	1:30	25	25	50
	US02MIICV02	Practical	P	2	4	2	25	25	50
Mathematics	US02MIMTH01	Matrices and Complex Numbers	T	2	2	1:30	25	25	50
	US02MIMTH02	Problems and Exercises in Matrices and Complex Numbers (Practical)	P	2	4	2	25	25	50
Electronics and Communication	US02MIELC01	Electronics Devices and Circuits	T	2	2	1:30	25	25	50
	US02MIELC02	Electronics and Communication Practical	P	2	4	2	25	25	50
Statistics	US02MISTA01	Descriptive Statistics for Bivariate data	T	2	2	1:30	25	25	50
	US02MISTA01	Statistics Practical	P	2	4	2	25	25	50
Computer Science	US02MICSC01	Computer Basics and Logic Gates	T	2	2	1:30	25	25	50
	US02MICSC02	Practical Based on US02MICSC01	P	2	4	2	25	25	50
Electronics	US02MIELE01	AC Circuits.	T	2	2	1:30	25	25	50
	US02MIELE02	Electronics Practicals.	P	2	4	2	25	25	50

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							Internal	External	Total
Multi / Inter Disciplinary (Any One Subject)									
Chemistry	US02IDCHE01	Fundamentals of Chemistry-II	T	2	2	1:30	25	25	50
	US02IDCHE02	Chemistry Practical-II	P	2	4	2	25	25	50
	US02MDCHE01	Environmental Pollution - II	T	2	2	1:30	25	25	50
	US02MDCHE02	Chemistry Practical-II	P	2	4	2	25	25	50
Physics	US02IDPHY01	Introductory electronics, network circuits and a.c. bridges	T	2	2	1:30	25	25	50
	US02IDPHY02	Physics Practical	P	2	4	2	25	25	50
Zoology	US02IDZOO01	Chordates	T	2	2	1:30	25	25	50
	US02IDZOO02	Zoology Practical	P	2	4	2	25	25	50
Biochemistry	US02IDBIC01	Basic concepts of Biochemistry-II	T	2	2	1:30	25	25	50
	US02IDBIC02	Biochemistry Practical	P	2	4	2	25	25	50
Botany	US02IDBOT01	Plants and Human Welfare -II	T	2	2	1:30	25	25	50
	US02IDBOT02	Botany Practical	P	2	4	2	25	25	50
Biotechnology	US02IDBTE01	Introduction to genetics & chromosomes	T	2	2	1:30	25	25	50
	US02IDBTE02	Biotechnology Practical	P	2	4	2	25	25	50
Microbiology	US02IDMIC01	Fundamentals of Microbiology	T	2	2	1:30	25	25	50
	US02IDMIC02	Microbiology Practical	P	2	4	2	25	25	50
Industrial Chemistry	US02IDICH01	Introduction to Instrumentation and Process	T	2	2	1:30	25	25	50
	US02IDICH02	Industrial Chemistry Practical	P	2	4	2	25	25	50
Mathematics	US02IDMTH01	Basics of Matrices	T	2	2	1:30	25	25	50
	US02IDMTH02	Problems and Exercises in Basics of Matrices (Practical)	P	2	4	2	25	25	50
Computer Science	US02IDCSC01	Basics of Computers - II	T	2	2	1:30	25	25	50
	US02IDCSC02	Practical Based on US02IDCSC01	P	2	4	2	25	25	50
Electronics	US02IDELE01	Impedance Circuits.	T	2	2	1:30	25	25	50
	US02IDELE02	Electronics Practicals.	P	2	4	2	25	25	50
Statistics	US02IDSTA01	Foundations of Statistics-II (Effect from June, 2024)	T	2	2	1:30	25	25	50
	US02IDSTA02	Practical in Statistics-II (Effect from June, 2024)	P	2	4	2	25	25	50

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Skill Enhancement Course (Any One Subject)									
Chemistry	US02SECHE01	Fundamentals of Soil Chemistry	T	2	2	1:30	25	25	50
Physics	US02SEPHY01	Electrical and Electronic components and measurement-II	T	2	2	1:30	25	25	50
Biochemistry	US02SEBIC01	Tools and Techniques in Biochemistry-II	T	2	2	1:30	25	25	50
Botany	US02SEBOT01	Floriculture	T	2	2	1:30	25	25	50
Zoology	US02SEZOO01	Economic Zoology	T	2	2	1:30	25	25	50
Industrial Chemistry	US02SEICH01	Industrial Safety & Hygiene - 1	T	2	2	1:30	25	25	50
Statistics	US02SESTA01	Biostatistics for Data Handling	T	2	2	1:30	25	25	50
	US02SESTA02	Biostatistics for Data Handling (Effect from June, 2024)	T	2	2	1:30	25	25	50
Computer Science	US02SECSC01	Information Technology Fundamentals – II (ITF-II)	T	2	2	1:30	25	25	50
Electronics	US02SEELE01	Fundamentals of Computer Hardware-2	T	2	2	1:30	25	25	50

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Value Added Course <u>(Any One)</u>	US02VAIPD01	Integrated Personality Development	T	2	2	1:30	25	25	50
	US02VABSC01	NCC Army-1	T	2	2	1:30	25	25	50
	US02VABSC02	Environmental Studies	T	2	2	1:30	25	25	50
	US02VABSC03	National Service Scheme - I	T	2	2	1:30	25	25	50
	US02VABSC04	Yoga Mediation & Happiness	T	2	2	1:30	25	25	50