

**SARDAR PATEL UNIVERSITY**  
**NEP Structure B.Sc. Semester: I**  
**(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
<b>Ability Enhancement Course</b>									
	US01AEENG01	Functional English	P	2	2	2	25	25	50
<b>Major Course (Any One Subject)</b>									
<b>Chemistry</b>	US01MACHE01	General Chemistry-I	T	4	4	2:30	50	50	100
	US01MACHE02	Chemistry Practical-I	P	4	8	3	50	50	100
<b>Physics</b>	US01MAPHY01	Mechanics and Optics	T	4	4	2:30	50	50	100
	US01MAPHY02	Physics Practical	P	4	8	3	50	50	100
<b>Zoology</b>	US01MAZOO01	Animal Diversity and Physiology-1	T	4	4	2:30	50	50	100
	US01MAZOO02	Zoology Practical	P	4	8	3	50	50	100
<b>Bio Chemistry</b>	US01MABIC01	Introduction to Biochemistry	T	4	4	2:30	50	50	100
	US01MABIC02	Biochemistry Practical	P	4	8	3	50	50	100
<b>Botany</b>	US01MABOT01	Biomolecules and Cellbiology	T	4	4	2:30	50	50	100
	US01MABOT02	Botany Practical	P	4	8	3	50	50	100
<b>Biotechnology</b>	US01MABTE01	Basic of Biotechnology-1	T	4	4	2:30	50	50	100
	US01MABTE02	Biotechnology Practical	P	4	8	3	50	50	100
<b>Microbiology</b>	US01MAMIC01	Introduction to Microbiology	T	4	4	2:30	50	50	100
	US01MAMIC01	Microbiology Practical	P	4	8	3	50	50	100
<b>Industrial Chemistry</b>	US01MAICH01	Industrial Aspects of Chemistry	T	4	4	2:30	50	50	100
	US01MAICH02	Industrial Chemistry Practical	P	4	8	3	50	50	100



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<b>Industrial Chemistry Vocational</b>	US01MAICV01	Applied Chemistry	T	4	4	2:30	50	50	100
	US01MAICV02	Practical	P	4	8	3	50	50	100
<b>Mathematics</b>	US01MAMTH01	Calculus	T	4	4	2:30	50	50	100
	US01MAMTH02	Problems and Exercises in Calculus (Practical)	P	4	8	3	50	50	100
<b>Electronics and Communication</b>	US01MAELC01	Electronic Measurement and Instrumentation	T	4	4	2:30	50	50	100
	US01MAELC02	Electronics and Communication Practical	P	4	8	3	50	50	100
<b>Computer Science</b>	US01MACSC01	Computer Fundamentals - I	T	4	4	2:30	50	50	100
	US01MACSC02	Practical Based on US1MACSC01	P	4	8	3	50	50	100
<b>Electronics</b>	US01MAELE01	Electronic Components.	T	4	4	2:30	50	50	100
	US01MAELE02	Electronics Practicals.	P	4	8	3	50	50	100

<b>Minor Course (Any One Subject)</b>									
<b>Chemistry</b>	US01MICHE01	Basic Chemistry-I	T	2	2	1:30	25	25	50
	US01MICHE02	Chemistry Practical-I	P	2	4	2	25	25	50
<b>Physics</b>	US01MIPHY01	Optics and LASER applications	T	2	2	1:30	25	25	50
	US01MIPHY02	Physics Practical	P	2	4	2	25	25	50
<b>Zoology</b>	US01MIZOO01	Invertebrate Diversity	T	2	2	1:30	25	25	50
	US01MIZOO02	Zoology Practical	P	2	4	2	25	25	50
<b>Biochemistry</b>	US01MIBIC01	Fundamentals of Biochemistry-I	T	2	2	1:30	25	25	50
	US01MIBIC02	Biochemistry Practical	P	2	4	2	25	25	50
<b>Botany</b>	US01MIBOT01	Phycology and Mycology	T	2	2	1:30	25	25	50
	US01MIBOT02	Botany Practical	P	2	4	2	25	25	50

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<b>Biotechnology</b>	US01MIBTE01	Basic of Biotechnology-2	T	2	2	1:30	25	25	50
	US01MIBTE02	Biotechnology Practical	P	2	4	2	25	25	50
<b>Microbiology</b>	US01MIMIC01	Introduction to Microbiology	T	2	2	1:30	25	25	50
	US01MIMIC02	Microbiology Practical	P	2	4	2	25	25	50
<b>Industrial Chemistry</b>	US01MIICH01	Introduction to Industrial Chemistry - 1	T	2	2	1:30	25	25	50
	US01MIICH02	Industrial Chemistry Practical	P	2	4	2	25	25	50
<b>Industrial Chemistry Vocational</b>	US01MIICV01	Introduction to Industrial Chemistry	T	2	2	1:30	25	25	50
	US01MIICV02	Practical	P	2	4	2	25	25	50
<b>Mathematics</b>	US01MIMTH01	Analytic Geometry	T	2	2	1:30	25	25	50
	US01MIMTH02	Problems and Exercises in Analytic Geometry (Practical)	P	2	4	2	25	25	50
<b>Electronics and Communication</b>	US01MIELC01	Instrumentation	T	2	2	1:30	25	25	50
	US01MIELC02	Electronics and Communication Practical	P	2	4	2	25	25	50
<b>Statistics</b>	US01MISTA01	Descriptive Statistics for Univariate data	T	2	2	1:30	25	25	50
	US01MISTA01	Statistics Practical	P	2	4	2	25	25	50
<b>Computer Science</b>	US01MICSC01	Computer Organization and Problem Solving	T	2	2	1:30	25	25	50
	US01MICSC02	Practical Based on US1MICSC01	P	2	4	2	25	25	50
<b>Electronics</b>	US01MIELE01	Basic Electronics.	T	2	2	1:30	25	25	50
	US01MIELE02	Electronics Practicals.	P	2	4	2	25	25	50

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<b>Multi / Inter Disciplinary (Any One Subject)</b>									
<b>Chemistry</b>	US01DCHE01	Fundamentals of Chemistry-I	T	2	2	1:30	25	25	50
	US01MDCHE01	Environmental Pollution-I	T	2	2	1:30	25	25	50
	US01DCHE02	Chemistry Practical-I	P	2	4	2	25	25	50
	US01MDCHE02	Chemistry Practical-I	P	2	4	2	25	25	50
<b>Physics</b>	US01IDPHY01	LASER and Optical Instruments	T	2	2	1:30	25	25	50
	US01IDPHY02	Physics Practical	P	2	4	2	25	25	50
<b>Zoology</b>	US01IDZOO01	Invertebrates	T	2	2	1:30	25	25	50
	US01IDZOO02	Invertebrates Practical	P	2	4	2	25	25	50
<b>Biochemistry</b>	US01IDBIC01	Basic concepts of Biochemistry	T	2	2	1:30	25	25	50
	US01IDBIC02	Biochemistry Practical	P	2	4	2	25	25	50
<b>Botany</b>	US01IDBOT01	Plants and Human welfare	T	2	2	1:30	25	25	50
	US01IDBOT02	Botany Practical	P	2	4	2	25	25	50
<b>Biotechnology</b>	US01IDBTE01	Introduction to Biotechnology	T	2	2	1:30	25	25	50
	US01IDBTE02	Biotechnology Practical	P	2	4	2	25	25	50
<b>Microbiology</b>	US01IDMIC01	Introduction to Microbiology	T	2	2	1:30	25	25	50
	US01IDMIC02	Microbiology Practical	P	2	4	2	25	25	50
<b>Industrial Chemistry</b>	US01IDICH01	Introduction to Instrumentation and Process Control-1	T	2	2	1:30	25	25	50
	US01IDICH02	Industrial Chemistry Practical	P	2	4	2	25	25	50
<b>Mathematics</b>	US01IDMTH01	Higher Order and Partial Derivatives	T	2	2	1:30	25	25	50
	US01IDMTH02	Problems and Exercises in Higher Order and Partial Derivatives	P	2	4	2	25	25	50
<b>Computer Science</b>	US01IDCSC01	Basics of Computers-I	T	2	2	1:30	25	25	50
	US01IDCSC02	Practical Based on US1DCSC01	P	2	4	2	25	25	50
<b>Electronics</b>	US01IDELE01	Fundamentals of Electronics	T	2	2	1:30	25	25	50
	US01IDELE02	Electronics Practicals.	P	2	4	2	25	25	50
<b>Statistics</b>	US01IDSTA01	Foundations of Statistics-I (Effect from June, 2024)	T	2	2	1:30	25	25	50
	US01IDSTA02	Practical in Statistics-I (Effect from June, 2024)	P	2	4	2	25	25	50

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<b>Skill Enhancement Course (Any One Subject)</b>									
<b>Chemistry</b>	US01SECHE01	Environmental Chemistry-I	T	2	2	1:30	25	25	50
<b>Physics</b>	US01SEPHY01	Electrical and Electronic components and measurement-I	T	2	2	1:30	25	25	50
	US01SEPHY02	Experimental skills in Physics (Effect from June, 2024)	P	2	4	2	25	25	50
<b>Biochemistry</b>	US01SEBIC01	Tools and Techniques in Biochemistry-1	T	2	2	1:30	25	25	50
<b>Botany</b>	US01SEBOT01	Landscape and gardening	T	2	2	1:30	25	25	50
	US01SEBOT02	Basic Cell Biology and Plant Physiology Techniques (Practical) (Effect from June, 2026)	P	2	4	2	25	25	50
<b>Microbiology</b>	US01SEMIC01	Fermented food	T	2	2	1:30	25	25	50
<b>Zoology</b>	US01SEZOO01	Wildlife and Techniques	T	2	2	1:30	25	25	50
	US01SEZOO02	Fundamental Zoological Laboratory Skills (Practical) (Effect from June, 2026)	P	2	4	2	25	25	50
<b>Industrial Chemistry</b>	US01SEICH01	Industrial Safety & Hygiene - 1	T	2	2	1:30	25	25	50
<b>Statistics</b>	US01SESTA01	Elements of Biostatistics	T	2	2	1:30	25	25	50
	US01SESTA02	Statistics Practical – I (Effect from June, 2026)	P	2	4	2	25	25	50
<b>Computer Science</b>	US01SECSC01	Information Technology Fundamentals – I (ITF-I)	T	2	2	1:30	25	25	50
<b>Mathematics</b>	US01SEMTH01	Number Theory-1 (Effect from June, 2026)	T	2	2	1:30	25	25	50
	US01SEMTH02	Basic Calculus Practical) (Effect from June, 2026)	P	2	4	2	25	25	50

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<b>Value Added Course / <u>Indian Knowledge System</u> (Any One)</b>	US01IKBSC01	Introduction to Indian Knowledge Systems	T	2	2	1:30	25	25	50
	US01IKBSC02	Arthaveda	T	2	2	1:30	25	25	50
	US01IKBSC03	Astrology	T	2	2	1:30	25	25	50
	US01IKBSC04	Dhanurveda	T	2	2	1:30	25	25	50
	US01IKBSC05	Gandharvaveda	T	2	2	1:30	25	25	50
	US01IKBSC06	Kalp Shashtra	T	2	2	1:30	25	25	50
	US01IKBSC07	Ayurveda	T	2	2	1:30	25	25	50
	US01IKBSC08	Chhand Rhythm	T	2	2	1:30	25	25	50
	US01IKBSC09	Contribution of Ancient Indian Knowledge in Modern Science	T	2	2	1:30	25	25	50

(નોંધ: પરીક્ષા વિભાગના પરિપત્ર નં. ઇ-૩/૧૪૯૫ તારીખ: ૧૨/૧૦/૨૦૨૩ યુનિવર્સિટીની વેબસાઇટ [www.spuvvn.edu/students\\_corner/Examination](http://www.spuvvn.edu/students_corner/Examination) Information/Examination Notification 2023-24 પર ઉપલબ્ધ છે, જેની નોંધ લઈ આગળની કાર્યવાહી કરવાની રહેશે.)