

Course offered :

**SEMESTER-WISE COURSE STRUCTURE FOR CHOICE BASED CREDIT SYSTEM
INB.Sc. Honours (CHEMISTRY)**

SEMESTER	CORE COURSE (14 papers) (6 credit per paper)	Ability Enhancement Compulsory Course (AECC) (2 papers) (2 credit per paper)	Ability Enhancement Elective Course (AEEC) (Skill Based) (2 papers) (2 credit per paper)	Elective: Discipline Specific DSE (4 papers) (6 credit per paper)	Elective: Generic (GE)4 papers (To be taken from other
I	CHEMISTRY-C-101	Communicative English			GE-1
	CHEMISTRY -C-102	Alt. English/MIL			GE-2
II	CHEMISTRY -C-201	Environmental Science			
	CHEMISTRY -C-202				GE-3
III	CHEMISTRY -C-301		CHEMISTRY- SEC-301		GE-4
	CHEMISTRY -C-302				
	CHEMISTRY -C-303				
IV	CHEMISTRY -C-401		CHEMISTRY- SEC-401		
	CHEMISTRY -C-402				
	CHEMISTRY -C-403				
V	CHEMISTRY -C-501			CHEMISTRY- DSE-501	
	CHEMISTRY -C-502			CHEMISTRY- DSE -502	
VI	CHEMISTRY -C-601			CHEMISTRY- DSE -601	
	CHEMISTRY -C-602			CHEMISTRY- DSE -602	

Core Courses for Chemistry (Honours) with Course Code and Course Name

SEMESTER	SEMESTER	SEMESTER	CREDIT
I	CHEMISTRY-C-101 CHEMISTRY-C-101- PRACT.	Inorganic Chemistry –101 <i>Atomic Structure and Chemical Bonding</i> Practical	4 2
	CHEMISTRY-C-102 CHEMISTRY-C-102- PRACT.	Physical Chemistry –102 <i>States of Matter and Ionic Equilibrium</i> Practical	4 2
II	CHEMISTRY-C-201 CHEMISTRY-C-201- PRACT.	Organic Chemistry –201 <i>Hydrocarbons and Stereochemistry</i> Practical	4 2
	CHEMISTRY-C-202 CHEMISTRY-C-202- PRACT.	Physical Chemistry –202 <i>Chemical Thermodynamics and its Applications</i> Practical	4 2
III	CHEMISTRY-C-301 CHEMISTRY-C-301- PRACT.	Inorganic Chemistry –301 <i>s- & p-block Elements and Metallurgy</i> Practical	4 2
	CHEMISTRY-C-302 CHEMISTRY-C-302-LAB	Organic Chemistry –302 <i>Halogen & Oxygen Containing Functional Groups</i> Practical	4 2
	CHEMISTRY-C-303 CHEMISTRY-C-303- PRACT.	Physical Chemistry –303 <i>Phase Equilibria and Chemical Kinetics</i> Practical	4 2
IV	CHEMISTRY-C-401 CHEMISTRY-C-401- PRACT.	Inorganic Chemistry –401 <i>Coordination Chemistry and its Applications</i> Practical	4 2
	CHEMISTRY-C-402 CHEMISTRY-C-402- PRACT.	Organic Chemistry –402 <i>Heterocyclic Chemistry</i> Practical	4 2
	CHEMISTRY-C-403 CHEMISTRY-C-403- PRACT.	Physical Chemistry –403 <i>Electrochemistry</i> Practical	4 2
V	CHEMISTRY-C-501 CHEMISTRY-C-501 - PRACT.	Organic Chemistry –501 <i>Biomolecules</i> Practical	4 2
	CHEMISTRY-C-502 CHEMISTRY-C-502- PRACT.	Physical Chemistry –502 <i>Quantum Chemistry and Spectroscopy</i> Practical	4 2
VI	CHEMISTRY-C-601 CHEMISTRY-C-601- PRACT.	Inorganic Chemistry –601 <i>Organometallic Chemistry</i> Practical	4 2
	CHEMISTRY-C-602 CHEMISTRY-C-602- PRACT.	Organic Chemistry –602 <i>Spectroscopy, Dyes and Polymers</i> Practical	4 2

Discipline Specific Elective (DSE) Courses for Chemistry Honours

SEMESTER	COURSE No.	COURSE NAME	Credit
V (Any Two Papers)	CHEMISTRY-DSE-501	<i>Analytical Methods in Chemistry</i>	4
	CHEMISTRY-DSE-501- PRACT.	<i>Practical</i>	2
	CHEMISTRY-DSE-502	<i>Green Chemistry</i>	4
	CHEMISTRY-DSE-502- PRACT.	<i>Practical</i>	2
	CHEMISTRY-DSE-503	<i>Research Methodology for Chemistry</i>	6
	CHEMISTRY-DSE-504	<i>Elementary Computational Chemistry</i>	6
VI (Any two Papers)	CHEMISTRY-DSE-601	<i>Inorganic Materials of Industrial</i>	4
	CHEMISTRY-DSE-601- PRACT.	<i>Importance</i> <i>Practical</i>	2
	CHEMISTRY-DSE-602	<i>Industrial Chemicals & Environment</i>	4
	CHEMISTRY-DSE-602- PRACT.	<i>Practical</i>	2
	CHEMISTRY-DSE-603	<i>Dissertation (Project Work)</i>	6

SEMESTER	COURSE No.	COURSE NAME	Credit
III	CHEMISTRY-SEC-301	<i>Basic Analytical Chemistry</i>	2
IV	CHEMISTRY-SEC-401	<i>Fuel Chemistry</i>	2

Semester wise list of Chemistry Generic Elective papers for the students taking Honours in other disciplines

SEMESTER	COURSE No.	COURSE NAME	Credit
I	CHEMISTRY-GE-101	<i>Atomic Structure, Bonding, General Organic Chemistry and Aliphatic Hydrocarbons</i>	4
	CHEMISTRY-GE-101- PRACT.	Practical	2
II	CHEMISTRY-GE-201	<i>Chemical Energetics, Equilibria and Functional Group Organic Chemistry-I</i>	4
	CHEMISTRY-GE-201- PRACT.	Practical	2
III	CHEMISTRY-GE-301	<i>Solutions, Phase Equilibrium, Conductance, Electrochemistry and Functional Group Organic Chemistry-II</i>	4
	CHEMISTRY-GE-301- PRACT.	Practical	2
IV	CHEMISTRY-GE-401	<i>Transition metals, Coordination Chemistry, States of Matter and Chemical Kinetics</i>	4
	CHEMISTRY-GE-401- PRACT.	Practical	2

**SEMESTER-WISE COURSE STRUCTURE FOR CHOICE BASED CREDIT SYSTEM IN
B.Sc. with chemistry**

SEMESTER	DISCIPLINE SPECIFIC CORE COURSE (DSC) (12 papers) [4paperseachfrom3 disciplines i.e., DSC 1, DSC2&DSC3] (6 credit per paper)	Ability Enhancement Compulsory Course (AECC) (2 papers) (2 credit per paper)	Skill Enhancement Course (SEC) (4 papers) (2 credit per paper)	Discipline Specific Elective (DSE) (6 papers) (6creditperpaper) [2papersforchemistry and2paperseachfor other 2 disciplines]
I	DSC I A Chemistry 101	Communicative English		
	DSC 2 A	Alt. English/MIL		
	DSC 3 A			
II	DSC I B Chemistry 201	Environmental Science		
	DSC 2 B			
	DSC 3 B			
III	DSC I C Chemistry 301		CHEMISTRYSEC301	
	DSC 2 C			
	DSC 3 C			
IV	DSC I D Chemistry 101		CHEMISTRYSEC401	
	DSC 2 D			
	DSC 3 D			
V			CHEMISTRYSEC501	DSC I A Chemistry 501
				DSE2 A
				DSE3 A
VI			CHEMISTRYSEC601	DSC I A Chemistry 601
				DSE2 B
				DSE3 B

CBCS: B. Sc. with Chemistry

SemesterwiselistofChemistypaperstobestudiedasDisciplineSpecificCore(DSC)Courses by students of BSc with Chemistry(Regular)

SEMESTER	COURSE No. Course Name	Credit
I	CHEMISTRY-DSC-101 <i>Atomic Structure, Bonding, General Organic Chemistry and AliphaticHydrocarbons</i>	4
	CHEMISTRY-DSC-101-PRACT. <i>Practical</i>	2
II	CHEMISTRY-DSC-201 <i>Chemical Energetics, Equilibria and Functional Group Organic Chemistry-I</i>	4
	CHEMISTRY-DSC-201- PRACT. <i>Practical</i>	2
III	CHEMISTRY-DSC-301 <i>Solutions, Phase Equilibrium,Conductance, Electrochemistry and Functional Group Organic Chemistry-II</i>	4
	CHEMISTRY-DSC-301- PRACT. <i>Practical</i>	2
IV	CHEMISTRY-DSC-401 <i>Transition metals, Coordination Chemistry, States of Matter and Chemical Kinetics</i>	4
	CHEMISTRY-DSC-401- PRACT. <i>Practical</i>	2

Discipline Specific Elective (DSE) Courses

V	CHEMISTRY-DSE-501 <i>Analytical Methods in Chemistry</i>	4
	CHEMISTRY-DSE-501- PRACT. <i>Practical</i>	2
VI	CHEMISTRY-DSE-601 <i>Inorganic Materials of Industrial Importance</i>	4
	CHEMISTRY-DSE-601- PRACT. <i>Practical</i>	2
III	CHEMISTRY-SEC-301 <i>Basic Analytical Chemistry</i>	2
IV	CHEMISTRY-SEC-401 <i>Fuel Chemistry</i>	2
V	CHEMISTRY-SEC-501 <i>Chemistry of Cosmetics and Perfumes</i>	2
VI	CHEMISTRY-SEC-601 <i>Pharmaceutical Chemistry</i>	2

Skill Enhancement Courses (SEC)