



KHALISANI MAHAVIDYALAYA

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Enlightenment through Education

Crosscutting issues of Chemistry (CBCS) :

Sl. No.	Subject / Department	Name of the Programme	Semester	Course Code	Course Title	Relevance of Crosscutting Issues
1.	Chemistry	B.Sc. Hons / General	IV (4)	SEC-2	Pharmaceuticals Chemistry: Drugs & Pharmaceuticals	i) Use and functions of antibiotics like penicillin, cephalosporin etc. ii) Process development and manufacture of ethyl alcohol and drugs. iii) Helps to grow thorough knowledge regarding synthesis of different drugs and their functions against different diseases.
		B.Sc. Hon's	V (5)	CC-12	Heterocyclic compounds	Medicinal use
					Biomolecules	Scientific knowledge of gender of human beings .
				DSE-2	Analytical methods in Chemistry	Modern instrumental techniques used in the research field as well as in the chemical industry.
				CC-13	Bioinorganic Chemistry	i) Metal ion transport across biological membrane Na^+/K^+ ion pump. ii) Oxygen transport in biological systems: Haemoglobin, Myoglobin, Hemocyanine and Hemerythrin.
				DSE-3	Polymer Chemistry	Structure, properties and application of the following polymers: polyolefins, polystyrene and styrene copolymers, poly (vinyl chloride) and related polymers. Polyamides and related polymers. Phenol formaldehyde resins (Bakelite, Novalac).



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Crosscutting issues of Chemistry (NEP) :

Subject / Department	Name of the Programme	Semester	Course Code	Course Title	Relevance of Crosscutting Issues
Chemistry	B.Sc. Major / Minor	I	CHEM101-1 (Major) & CHEM102-I (Minor)	Basic Chemistry-I General Chemistry -I	i) Preliminary idea about atomic model, atomic structure, quantum mechanics, properties of elements. Kinetics of chemical reactions, thermodynamics along with concept real gases helps to enrich students for the subsequent semesters. ii) Students become familiar with the identification and isolation of pure organic compounds which have strong correlation with chemical industry.
			CHEM103-I	(MDC)	Applications of Chemistry in diversified fields e.g. Food industry, fuels, medicine chemistry, pharmaceutical industry.
			CHEM105-1	SEC Chemistry Paper	Applications in Drug discovery, design and development, organic synthesis.
			B.Sc. Major / Minor	II	CHEM201-1 & CHEM202-II
CHEM203-1 (MDC)	(MDC)	Application oriented chemistry in Dyes, Pigments, Cosmetics and Perfumes			
CHEM205-1	Basic Analytical Chemistry	Analytical chemistry applications in soil analysis, water analysis, food industry, cosmetics etc.			