



গড়গাঁও মহাবিদ্যালয়

GARGAON COLLEGE

NAAC accredited with 'B' Grade



Course Distribution
Department of Chemistry
2019-20

Course distribution 2019-20

C1 Inorganic Chemistry

Faculty name	Semester		Paper Code	Unit wise division	
Mr. Ranjit Dutta	I	H	C-101	Unit I: Atomic Structure Unit III: Chemical Bonding	
		H	C-101-LAB	(A) Titrimetric Analysis (B) Acid-Base Titrations (C) Oxidation-Reduction Titrimetry	
		GE	GE-101	Unit II: Chemical Bonding and Molecular Structure	
		GE	GE-101-LAB	(A) Inorganic Volumetric Analysis	
	III	M	MM-301	Unit I: Coordination compounds Magnetic properties	
		M	MM-302	Inorganic Lab.: Inorganic Qualitative analysis	
	V	M	MM-503	Unit I: Organometallic compounds Unit II: Transition metal clusters	
		M	MM-504	Inorganic Lab. 1. Volumetric titrations 2. Estimation of total hardness of water samples	
		M	MM-508	Inorganic Lab.: Quantitative analysis	
	NT	I	H	C-101	Unit II: Periodicity of Elements Unit IV: Oxidation-Reduction
			H	C-101-LAB	(A) Titrimetric Analysis (B) Acid-Base Titrations (C) Oxidation-Reduction Titrimetry
GE			GE-101	Unit I: Atomic Structure	
GE			GE-101-LAB	(A) Inorganic Volumetric Analysis	
III		M	MM-301	Unit II: Inorganic reaction mechanism Unit III: Chemistry of d- and f-block elements	
V		M	MM-503	Unit III: Error in quantitative analysis Unit IV: Organic reagents in inorganic analysis	
		M	MM-504	Inorganic Lab. 1. Volumetric titrations	

				2. Estimation of total hardness of water samples
		NM	NM-501	Unit II: Preparative Chemistry
		NM	NM-502	Inorganic Lab.: Volumetric analysis

C2 Organic Chemistry

Faculty name	Semester		Paper Code	Unit wise division
Dr. Arandao Narzary	I	H	N/A	N/A
		GE	GE-101	Unit-IV: Stereochemistry V: Aliphatic Hydrocarbons
		GE	GE-101-LAB	Detection of characterized element (N, S, Cl, Br, I) in an organic compound, Separation of mixtures by Chromatography
	III	M	MM 303	Unit-I: Chemistry of Halogenated Hydrocarbons & Organometallic Compounds of Mg and Li Unit-III: Carbonyl Compounds: Aldehydes and ketones (aliphatic and aromatic)
		M	MM 304-LAB	A) Organic Qualitative analysis B) Organic preparation
		NM	NM 301	Unit-I: Aliphatic Hydrocarbons: Alkenes & Alkynes Unit-II: Aromatic Hydrocarbons Unit – III Alkyl and Aryl halides
		NM	NM 302-Lab	a) Organic Qualitative analysis b) Purification of Organic Compounds by crystallization (from water and alcohol) and distillation c) Criteria of purity: Determination of melting points
		V (M)	MM 505	Unit-I: Pericyclic reactions:

			Unit-II Bio-molecules Unit-III Nucleic acids & Enzymes Unit-IV Pharmaceutical compounds: Structure and Importance Unit-V Terpenes	
		MM 506-Lab	A) Organic Quantitative analysis B) Food Analysis	
Mr. Rituraj Tahu	I	H	N/A	N/A
		GE	GE-101	Unit-III: Fundamentals of Organic Chemistry V:Aliphatic Hydrocarbons
			GE-101 Lab	Detection of characterized element (N, S, Cl, Br, I) in an organic compound, Separation of mixtures by Chromatography
	III	H	C-302	Unit-II: Alcohols, Phenols, Ethers and Epoxides IV: Carboxylic Acids and their Derivatives IV: Sulphur containing compounds
		H	C-302-lab	Unit –I, II, III Functional group analysis
		GE	GE-301	Unit-V: Carboxylic acid VI: Amine and diazonium salt
		GE	GE-301-lab	Unit-II: Organic analysis
	V (H)		C-501	Unit-III: Enzymes VI: Pharmaceutical compounds : structure and importance
	V (H)		C-501-Lab	Estimation of glycine, Study of the titration curve of glycine. Study of the action of salivary amylase on starch, Saponification value of oil or a fat

C3 Physical Chemistry

Faculty name	Semester		Paper Code	Unit wise division
Dr. Anna Gogoi	I	H	C-102	Unit-I (Liquid State) Unit-IV (Ionic Equilibrium)
		H	C-102 Lab	Practical
		GE	N/A	N/A
	V (M)		MM-501	Unit-I Chemical Kinetics
			MM-502 Lab	Practical
	Dr. Saheen Shehnaz Begum	I	H	C-102
GE			N/A	N/A
III		H	C-303	Unit 1: Phase equilibria Unit 3: Catalysis Unit 4: Surface Chemistry
		G E	GE-303	Unit 1: Solutions Unit 2: Phase equilibria Unit 4: Electrochemistry
V			C-502	Unit 1: Quantum Chemistry Unit 3: Photochemistry

Course distribution of even semester, 2020

C1 Inorganic Chemistry

Faculty name	Semester		Paper Code	Unit wise division
Mr. Ranjit Dutta	II	H	N/A	N/A
		GE	N/A	N/A
	IV	M	N/A	N/A
	VI (M)		MM-603	Unit III: Chromatographic methods
			MM-604	A. Inorganic preparation & Crystallization
Dr. Pakiza Begum	II	H	C-202	Unit III: Chemical Equilibrium Unit IV: Solutions and Colligative Properties
		H	C-202-LAB	Thermochemistry

	IV	M	MM-401	Unit III: Electrochemical cells
	VI (M)		MM-603	Unit I: Bio inorganic Chemistry Unit II: Introduction to material chemistry Unit IV: Industrial chemistry
			MM-604	A. Inorganic preparation & Crystallization

C2 Organic Chemistry

Faculty name	Semester		Paper Code	Unit wise division
Dr. Arandao Narzary	II	H	C-201	Unit-II: Stereochemistry Unit-III: Chemistry of Aliphatic Hydrocarbons
		H	C-201-LAB	EXP-1,2,3 and 4 Chromatography, Crystallization, Determination of melting point
		GE	GE-201	Unit-IV: Aromatic Hydrocarbons V: Alkyl and Aryl Halides
		GE	GE-201-LA B	Section B: Criteria of Purity: Determination of melting and boiling points, Preparations
	IV	M	MM 403	Unit-I: Active Methylene Compounds: Unit-III: Amino acids and proteins Unit – V Heterocyclic Compounds
		M	MM 404-lab	A) Chromatographic separation of the following mixtures and calculation of R _f value of the compounds
		NM	N/A	N/A
	VI (M)		MM 605	Unit-I Disconnection approach in organic synthesis Unit-II:NMR Spectroscopy Unit-III : Lipids Unit-IV: Dyes

		MM 606 LAB	1) Two step organic preparations (monitoring by TLC)
		MM 608	Project Work
		MM-607	Unit V: Spin resonance spectroscopy
	VI (NM)	NM 601	UNIT -I Active Methylene Compounds Unit-III- Preparation, properties and reaction of the Heterocyclic compounds & Polynuclear Hydrocarbon Unit – IV : Aliphatic & aromatic carbonyl compounds Unit – V Organic Chemistry of life
VI(NM)	NM 602	1) Organic Lab A) Organic preparation- B) Separation of mixtures by chromatography	
Mr. Rituraj Tahu	II	H	C-201 Unit-I: Basic Organic Chemistry Unit-IV: Cycloalkanes and Conformational analysis Unit-V: Aromatic Hydrocarbons
		H	C-201-LAB EXP-1,2,3 and 4 Chromatography, Crystalization, Determination of melting point
		GE	GE-201 Unit-VI: Alcohols, Phenols and Ethers
			GE-201-LA B Section B: Criteria of Purity: Determination of melting and boiling points, Preparations
	IV	H	C-402 Unit-II: Nitrogen Containing Functional Group IV: Alkaloids
		H	C-402-lab EXP-1,2 and 3 Detection of elements (N, S and Halogens, Functional group detection
			N/A N/A
	VI (H)	C-602	Unit-I:Organic Spectroscopy

			IV: Polymers
		C-602 LAB	Unit-I, II Qualitative analysis of unknown organic compounds containing monofunctional groups, Extraction of caffeine from tea leaves.
		DSE 601	Unit-III: Surface Coatings
		DSE-603	Project

C3 Physical Chemistry

Faculty name	Semester		Paper code	Unit wise division
Dr. Anna Gogoi	II	H	C-202 C-202 Lab	Unit-I (Chemical Thermodynamics) Practical
		GE	GE-201 GE-201-lab	Unit-3 (Ionic Equilibrium) Practical
	IV	M	MM-401 MM 402 Lab	Unit-II (Conductance) Unit I- Chemical Thermodynamics Practical
		M	NM-401 NM-402 Lab	Unit-IV Liquids Unit VII Chemical Kinetics Practical
	VI		MM 601 MM 602 Lab MM 608	Unit II- Macromolecules Unit V -Statistical Thermodynamics Practical Project Work
	Dr. Saheen Shehnaz Begum	II	H	C-202

		GE		Unit 1: Chemical energetics Unit 2: Chemical equilibrium
	IV	H	C-403	Unit 2: Electrochemistry Unit 3: Electrical and Magnetic Properties of Atoms and Molecules
		GE		Unit 4: Kinetic Theory of Gases Unit 6: Solids
	VI (H)		DSE-601	Unit 4: Batteries
			DSE-603	Dissertation (Project Work)



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