Proposed Date/Week	Unit/Section	Topic	Modules
Term I week 1	**The Chemistry of Carbon Compounds**	***Structure and Formulae***	Bonding in carbon compounds Homologous series Formulae Naming organic compouunds Isomerism
week 2-5		***Functional Group Analysis, Reactions and Mechanisms***	Alkanes Alkenes Alcohols Halogenoalkanes Carbonyl Compounds Carboxylic Acids Esters Amines Aromatic Compounds
week 6		***Acidic and Basic Character of Organic Compounds***	Acidity in alcohols, phenols and carboxylic acids Basic character of aliphatic amines, amides and aromatic amines Acid-base properties of amino acids
week 6		***Macromolecules***	Addition polymerisation Condensation polymerisation Monomers and Polymers Proteins Carbohydrates
week 7	**Analytical Methods and Separation Techniques**	***Uncertainty in Measurements***	Analysis of scientific data Accuracy in measurements and laboratory equipment

Proposed Date/Week	Unit/Section	Topic	Modules
Term I week 7	**Analytical Methods and Separation Techniques**	***Titrimetric Methods of Analysis***	Principles of titrations Primary standards Types of titrations Calculations using titrimetric data Uses of titrimetric analysis
week 8	**Analytical Methods and Separation Techniques**	***Gravimetric Methods of Analysis***	Principles of gravimetric analysis Functions of basic equipment used Calcultions using gravimetric analysis data Uses of gravimetric analysis
week 8		***Spectroscopic Methods of Analysis***	Electromagnetic spectrum Planck's Equation
week 9		***Ultra Violet-Visible Spectroscopy***	Principles of UV/VIS spectroscopy Analysing samples Beer-Lambert's Law Uses of UV/VIS spectroscopy
week 10		***Infrared Spectroscopy***	Principles of IR spectroscopy Analysing samples Uses of IR spectroscopy
week 11		***Mass Spectroscopy***	Principles of mass spectroscopy Mass Spectrometer Analysing Mass Spectrums Using spectral data to predict identities

Proposed Date/Week	Unit/Section	Topic	Modules
Term I week 12	**Analytical Methods and Separation Techniques**	***Chromatographic Methods of Separation***	Principles of chromatography Types of chromatography Chromatographic Procedures and analysis Applications of chromatography
week 13		***Phase Separations***	Raoult's Law and vapour pressure Principles of distillation Types of distillation Azeotropic mixtures Solvent Extraction Applications of distillation methods solvent extraction
week 14-15	Christmas Exams		
Term II week 1		***Phase Separations***	
week 2	**Industry and the Environment**	***Locating Industrial plants; Benefits and Risks***	Factors affecting location of industrial plants Safety requirements for industry
week 2		***Aluminium***	Aluminium production Uses of aluminium Aluminium industry and the environment
week 3		***Crude Oil***	Methods used in the separation of components of crude oil Uses of the components of crude oil Impact of petroleum industry on the environment
week 3		***Ammonia***	Haber Process Uses of ammonia Impact of ammonia industry on the environment

Proposed Date/Week	Unit/Section	Topic	Modules
week 4		***Ethanol***	Production of alcoholic beverages Uses of ethanol Social and economic impact of alcohol production and consumption Impact of alcohol industry on environment
Term II week 4-5	**Industry and the Environment**	***Chlorine***	Electrolysis of brine using diaphragm cell Industrial importance of halogens and their compounds Impact of chlor-alkali industry on the environment
week 5		***Sulphuric Acid***	Contact Process Industrial importance of compounds of sulphur Impact of sulphuric acid industry on the environment
week 6		***Water***	Water cycle Water purification Water pollution Impact of pollutants on the aquatic environment
week 7-8		***The Atmosphere***	Ozone Carbon cycle Global warming and Green-house effect Nitrogen cycle Acid Rain Combustion of hydrocarbon- based fuels Control and prevention of atmospheric pollution
week 9		***Solid Waste***	Waste reduction Impact of solid waste on the terrestrial environment
week 10-12	Pre- CAPE EXAMS		