

## BSC INDUSTRIAL CHEMISTRY COURSE OUTLINE YEAR ONE

Course unit	Course title	Hours	Semester
SCH 101	General and Inorganic Chemistry	45	1
SCH 102	Introduction to Organic Chemistry, Chemistry of Alkanes and cycloalkanes	45	2
SCH 103	General and Physical Chemistry	45	1
SCI 104	Foundations of Computer Science	45	1
SCA 101	Safety Methods in the Laboratory	45	1
SMA 101	Basic Mathematics	45	1
SMA 103	Calculus 1	45	1
SMA 104	Calculus 2	45	2
SCI 101	Elements of Physics I	45	2
CCS 001	Communication Skills	45	1
CCS 009	Elements of Economics	45	1
CCS 010	HIV and AIDS	45	2



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Chairman, Department of Chemistry

## BSC INDUSTRIAL CHEMISTRY COURSE OUTLINE YEAR TWO

Course unit	Course title	Hours	Semester
SCH 201:	Chemistry of the Main Block Elements	45	1
SCH 202	The Chemistry of Alkyl Halides, Alcohols, Ethers Alkenes, Alkynes and Aromatic Compounds	45	1
SCH 203	Thermodynamics I and Thermochemistry	45	1
SCH 204	Introduction to Reaction Kinetics and Electrochemistry	45	2
SCH 205	Group Theory and its Chemical Applications	45	2
SCH 206	Carbonyls, Organic Acids, Amines, Esters and Phenols	45	2
SCE 201	Introduction to Environmental Chemistry	45	1
SCI 202	Introduction to Unit Operations	45	1
SCI 203	Elements of Physics (II)	45	1
SCI 204	Technical Drawing	45	2
<u>SCA 201</u>	<u>Quantitative Analysis</u>	45	2
SMA 208	Ordinary Differential Equations	45	2
SMA 209	Elements of Algebra	45	1



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Course unit	Course title	Hours	Semester
SCH 301	Theory of Spectroscopy	45	1
SCH 302	Stereochemistry and Synthesis of Organic Compounds	45	1
SCH 303:	Thermodynamics II and Phase Equilibria	45	1
SCH 304:	Coordination Chemistry	45	2
SCH 305:	Amino acids, Peptides, Proteins, Carbohydrates and Nucleic acids	45	2
SCI 301	Fluid flow, Heat and Mass transfer	45	2
SCI 302	Material and Energy Balance	45	1
SCI 303	Biotechnology	45	2
ELECTIVES	(PICK TWO)	45	
SCI 304	Basic Industrial Chemicals	45	2
SCI 305	Formulation Chemistry and Technology	45	1
SCI 306	Agro-based Industries and Industrial Processes	45	2
SCA 301	Instrumental Methods of Analysis I	45	1
SCA 305	<u>Statistics for Chemists</u>	45	2



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## BSC INDUSTRIAL CHEMISTRY COURSE OUTLINE YEAR FOUR

Course unit	Course title	Hours	Semester
SCH 401	Chemistry of Transition Elements	45	1
SCH 402	<i>Heterocyclic Chemistry</i>	45	1
SCH 403	<i>Surface and Colloid Chemistry</i>	45	2
SCH 404	Organometallic Chemistry	45	2
SCH 405	<i>Further Chemical kinetics and Electrochemistry</i>	45	1
SCI 401	Reactor Design	45	2
SCI 402	Unit Processes in Organic Synthesis	45	1
SCI 403	<i>Entrepreneurship and Business Management</i>	45	2
ELECTIVES (PICK TWO)			
SCI 404	Petroleum and Polymer Processing	45	1
SCI 405	Fine Chemicals for Pharmaceuticals	45	1
SCI 406	Materials Science	45	2
SCI 407	Research Project in Industrial Chemistry	45	2
SCE 407	Hazardous Waste Management	45	2



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