

## BSC ENVIRONMENTAL CHEMISTRY COURSE OUTLINE YEAR ONE

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

## BSC ENVIRONMENTAL CHEMISTRY COURSE OUTLINE YEAR TWO

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

**BSC ENVIRONMENTAL CHEMISTRY COURSE OUTLINE YEAR THREE**

<b>Course unit</b>	<b>Course title</b>	<b>Hours</b>	<b>Semester</b>
SCH 301	Theory of Spectroscopy	45	
SCH 302	Stereochemistry and Synthesis of Organic Compounds	45	
SCH 303:	Thermodynamics II and Phase Equilibria	45	
SCH 304:	Coordination Chemistry	45	
SCH 305:	Amino acids, Peptides, Proteins, Carbohydrates and Nucleic acids	45	
SCE 301	Water Resource Pollution and Management	45	
SCE 302	Soil Chemistry, Pollution and Remediation	45	
SCE 303	Air Chemistry, Pollution and Management	45	
<b>ELECTIVES</b>			
SCE 304	Chemical Toxicology	45	
SCE 305	Natural Resource Extraction and Restoration Processes	45	
SCA 305	Statistics for Chemists	45	

**BSC ENVIRONMENTAL CHEMISTRY COURSE OUTLINE YEAR FOUR**

<b>Course unit</b>	<b>Course title</b>	<b>Hours</b>	<b>Semester</b>
SCH 401	Chemistry of Transition Elements	45	
SCH 402	Heterocyclic Chemistry	45	
SCH 403	Surface and Colloid Chemistry	45	
SCH 404	Organometallic Chemistry	45	
SCH 405	Further Chemical kinetics and Electrochemistry	45	
SCE 401	Environmental Biotechnology	45	
SCE 402	Environmental Impact Assessment and Audit	45	
SCE 403	Business Ventures, Organization and Marketing Strategies	45	
<b>ELECTIVES</b>			
SCE 404	Principles, Theory and Practice of Cleaner Production	45	
SCE 405	Climate Variability and Change	45	
SCE 406	Hazardous Waste Management	45	
SCE 407	Energy and the Environment	45	
SCE 408	Research Project in Environmental Chemistry	45	
SCA 402	Quantitation and Analytical Chemistry of Pollutants	45	

