

MAKERERE UNIVERSITY
COLLEGE OF EDUCATION AND EXTERNAL STUDIES
DEPARTMENT OF SCIENCE TECHNICAL AND VOCATIONAL EDUCATION

BACHELOR SCIENCE WITH EDUCATION PROGRAMME

CHEMISTRY MAJOR

YEAR 1 SEMESTER I

CHM 1101	Basic Inorganic Chemistry	45	-	-	45	3
CHM 1102	Basic Physical Chemistry	45	-	-	45	3
CHM 1105	Integrated Physical Chemistry/ Inorganic Laboratory			60	30	2
	TOTAL CUs					8

YEAR I SEMESTER II

CHM 1205	Basic Organic Chemistry	45	-	60	75	5
	TOTAL CUs					5

YEAR II SEMESTER I

CHM 2111	Elements of Analytical Chemistry	30	-	60	60	4
CHM 2112	Bonding and Periodicity	45	-	-	45	3
CHM 2113	Polyfunctional and cyclic Aliphatics	30	-	60	60	4
	For Audit					
CHM 2109	Aromatic Chemistry	30	-	-	30	2
	TOTAL CUs					11

Year II Semester II

CHM 2220	Transition Metal Chemistry	30	-	-	30	2
CHM 2221	Stereo- and Physical Organic Chemistry	30	-	-	30	2
CHM 2213	Electrochemistry	30	-	-	30	2
CHM 2222	Thermodynamic and Reaction Kinetics	30	-	60	60	4
	For Audit Only					
CHM 2223	Introductory Spectroscopy	30	-	-	30	2
	TOTAL CUs					10

YEAR III SEMESTER I

	Choose 4 Chemistry courses from:					
CHM 3128	Organometallic and Bioinorganic Chemistry	30	-	-	30	2
CHM 3122	Colloid Science	30	-	-	30	2
CHM 3124	Solid-State and Crystal Chemistry	30	-	-	30	2
CHM 3133	Divalent Species	30	-	-	30	2
CHM 3131	Reaction Kinetics	30			30	2
	TOTAL CUs					8

YEAR III SEMESTER II

CORE COURSES						
CHM 3236	Advanced Analytical Chemistry II	30	-	60	60	4
CHM 3232	Polymer Chemistry	30	-	-	30	2
CHM 3231	Advanced Physical Chemistry Practicals	-	-	60	30	2
	TOTAL CUs					8

CHEMISTRY MINOR**Year 1 Semester I**

CHM 1101	Basic Inorganic Chemistry	45	-	-	45	3
CHM 1102	Basic Physical Chemistry	45	-	-	45	3
CHM 1105	Integrated Physical Chemistry/ Inorganic Laboratory			60	30	2
	Total CUs					8

Year 1 Semester II

CHM 1205	Basic Organic Chemistry	15	-	60	75	5
	Total CUs					5

Year II Semester I

CORE COURSES						
CHM 2111	Elements of Analytical Chemistry	30	-	60	60	4
CHM 2112	Bonding and Periodicity	45	-	-	45	3
	Total Credits					6

Year II Semester II

	ELECTIVES: CHOOSE ANY TWO					
CHM 2220	Transition Metal Chemistry	30	-	-	30	2
CHM 2221	Stereo- and Physical Organic Chemistry	30	-	-	30	2
CHM 2213	Electrochemistry	30	-	-	30	2
CHM 2222	Thermodynamic and Reaction Kinetics	30	-	60	60	4
	Total CUs					6

YEAR III SEMESTER I

CORE						
CHM 3130	Organometallic and Bioinorganic Chemistry	30	-	-	30	2
	Total CUs					2

YEAR III SEMESTER II

CORE COURSES						
CHM 3232	Polymer Chemistry	30	-	-	30	2
	Choose one other Course unit from;					
CHM 3236	Advanced Analytical Chemistry II	30	-	-	30	2
CHM 3231	Advanced Physical Chemistry Practicals	-	-	60	30	2
	Total CUs					4