

BSC CHEMISTRY MAJOR PROGRAMME

Summary of Course Structure

Year 1: Semester I

CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 1101	BASIC INORGANIC CHEMISTRY	45	0	45	3
CHM 1102	BASIC PHYSICAL CHEMISTRY	45	0	45	3
CHM 1105	INTEGRATED PHYSICAL/ INORGANIC LABORATORY	0	60	30	2
TOTAL CU					8
COMMUNICATION SKILLS					3

AUDITED COURSES

Course Code	Course Title	L	P	CH	CU
MTH 1101	CALCULUS I	45	0	45	3

Semester II

CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 1205	BASIC ORGANIC CHEMISTRY	45	60	75	5
TOTAL CU					5

Year 2: Semester I

CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 2111	ELEMENTS OF ANALYTICAL CHEMISTRY	30	60	60	4
CHM 2112	BONDING AND PERIODICITY	45	0	45	3

CHM 2113	POLYFUNCTIONAL AND CYCLIC ALIPHATICS	30	60	60	4
CHM 2109	AROMATIC CHEMISTRY	30	0	30	2
TOTAL CU					13
DEVELOPMENT STUDIES					3

ELECTIVE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 2114	NATURAL PRODUCTS CHEMISTRY	30	0	30	2

Semester II

CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 2220	TRANSITION METAL CHEMISTRY	30	60	60	4
CHM 2221	STEREO- AND PHYSICAL ORGANIC CHEMISTRY	30	0	30	2
CHM 2213	ELECTROCHEMISTRY	30	0	30	2
CHM 2222	THERMODYNAMICS AND KINETICS	30	60	60	4
CHM 2223	INTRODUCTORY SPECTROSCOPY	30	0	30	2
TOTAL CU					14

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CHM 2301: FIELD ATTACHMENT

(5CU)

ELECTIVE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 2224	INORGANIC ENERGETICS	30	0	30	2
CHM 2218	BASIC ENVIRONMENTAL CHEMISTRY	30	0	30	2

CORE COURSES

Year 3: Semester I

CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 3128	ORGANOMETALLIC AND BIOINORGANIC CHEMISTRY	30	0	30	2

CHM 3129	QUANTUM CHEMISTRY	30	0	30	2
CHM 3122	COLLOID SCIENCE	30	0	30	2
CHM 3130	SOLUTION AND STATISTICAL THERMODYNAMICS	45	0	45	3
CHM 3124	SOLID-STATE AND CRYSTAL CHEMISTRY	30	0	30	2
ICH 3130	INORGANIC CHEMICAL TECHNOLOGY	30	30	45	3
TOTAL CU					14

ELECTIVE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 3131	REACTION KINETICS	30	0	30	2
CHM 3132	ADVANCED SPECTROSCOPY	30	0	30	2
CHM 3133	DIVALENT SPECIES	30	0	30	2

Semester II

CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 3236	ADVANCED ANALYTICAL CHEMISTRY	30	60	30	4
CHM 3228	APPLICATION OF GROUP THEORY IN CHEMISTRY	30	0	30	2
CHM 3237	PESTICIDES CHEMISTRY	30	0	30	2
CHM 3231	ADVANCED PHYSICAL CHEMISTRY PRACTICALS	0	60	30	2
ICH 3130	ORGANIC CHEMICAL TECHNOLOGY	30	30	45	3
TOTAL CU					13

ELECTIVE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 3233	ADVANCED INORGANIC TOPICS	30	0	30	2
CHM 3234	ADVANCED ORGANIC TOPICS	30	0	30	2
CHM 3238	STRUCTURE DETERMINATION	30	0	30	2
CHM 3232	POLYMER CHEMISTRY	30	0	30	2

BSC CHEMISTRY MINOR PROGRAMME

Summary of Course Structure

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CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 1101	BASIC INORGANIC CHEMISTRY	45	0	45	3
CHM 1102	BASIC PHYSICAL CHEMISTRY	45	0	45	3
CHM 1105	INTEGRATED PHYSICAL/ INORGANIC LABORATORY	0	60	30	2
TOTAL CU					8

AUDITED COURSES

Course Code	Course Title	L	P	CH	CU
	CALCULUS I	45	0	45	3

Semester II

CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 1205	BASIC ORGANIC CHEMISTRY	45	60	75	5
TOTAL CU					5

Year 2: Semester I

CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 2112	BONDING AND PERIODICITY	45	0	45	3

TOTAL CU					3

ELECTIVE COURSES (Choose one)

Course Code	Course Title	L	P	CH	CU
CHM 2115	NATURAL PRODUCTS CHEMISTRY	30	0	30	2
CHM 2114	AROMATIC CHEMISTRY	30	0	30	2

Semester II

CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 2220	TRANSITION METAL CHEMISTRY	30	60	30	4
CHM 2222	THERMODYNAMICS AND KINETICS	30	60	60	4
TOTAL CU					8

ELECTIVE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 2224	INORGANIC ENERGETICS	30	0	30	2
CHM 2218	BASIC ENVIRONMENTAL CHEMISTRY	30	0	30	2
CHM 2223	INTRODUCTORY SPECTROSCOPY	30	0	30	2

Year 3: Semester I

CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 3127	ORGANOMETALLIC AND BIOINORGANIC CHEMISTRY	30	0	30	2
TOTAL CU					2

ELECTIVE COURSES (Choose one)

Course Code	Course Title	L	P	CH	CU
CHM 3131	REACTION KINETICS	30	0	30	2
CHM 3132	ADVANCED SPECTROSCOPY	30	0	30	2

Semester II

CORE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 3237	PESTICIDES CHEMISTRY	30	0	30	2
TOTAL CU					2

ELECTIVE COURSES

Course Code	Course Title	L	P	CH	CU
CHM 3232	POLYMER CHEMISTRY	30	0	30	2
CHM 3238	STRUCTURE DETERMINATION	30	0	30	2

NOTE: Chemistry Minors will have a minimum of **30** Credit Units, reflected in the core courses.

MATHEMATICS REQUIREMENT

1. Students who possess Advanced Level Principal Pass and those possessing Advanced Level Subsidiary Pass in mathematics, are exempted from doing CALCULUS
2. Those students who do not possess a minimum of Advanced Level Subsidiary Pass in mathematics, must audit CHM 1104, and the auditing must be certified by the Lecturer.