

COURSE OUTLINE FOR BIOCHEMISTRY PROGRAMME 2025-2026 SESSION

Table 1: 100 Level Courses for Biochemistry Programme

FIRST SEMESTER					
Course code	Course Title	Course status	Units	LH	PH
CHM 101	General Chemistry I	C	2	30	-
CHM 107	General Chemistry Practical I	C	1	-	45
PHY 101	General Physics I	C	2	30	-
PHY 107	General Physics Practical I	C	1	-	45
BIO 101	General Biology I	C	2	30	-
BIO 107	General Biology Practical I	C	1	-	45
MTH 101	Elementary Mathematics I	C	2	30	-
GST 111	Communication in English I	C	2	15	45
GST 121	Character in Leadership I	C	1	15	-
COS 101	Introduction to Computing Sciences	C	3	30	45
TOTAL UNITS			17		
SECOND SEMESTER					
Course code	Course Title	Course status	Units	LH	PH
CHM 102	General Chemistry II	C	2	30	-
CHM 108	General Chemistry Practical II	C	1	-	45
BIO 102	General Biology II	C	2	30	-
BIO 108	General Biology Practical II	C	1	-	45
PHY 102	General Physics II	C	2	30	-
PHY 108	General Physics Practical II	C	1	-	45
MTH 102	Elementary Mathematics II	C	2	30	-
GST 112	Nigerian Peoples and Culture	C	2	30	-
GST 104	Tech Plus I	C	1	15	-
TOTAL UNITS			15		

Table 2: 200 Level Courses for Biochemistry Program

FIRST SEMESTER					
Course code	Course Title	Course status	Units	LH	PH
BCH 201	General Biochemistry I	C	2	30	-
BCH 203	General Biochemistry Practical I	C	1	-	45
CHM 211	Organic Chemistry I	C	2	30	-
MCB 221	General Microbiology I	R	2	30	-
MCB 231	Basic Techniques in Microbiology	R	2	-	90
STA 201	Statistics for Agriculture & Biological Sciences	C	3	45	-
ENT 211	Entrepreneurship and Innovation	C	2	15	45
GST 203	Tech Plus II	C	0	15	-
GST 221	Character in Leadership II	C	1	15	-
CUL- BCH 201	Cellular Physiology	R	2	30	-
TOTAL UNITS			17		
SECOND SEMESTER					
BCH 202	General Biochemistry II	C	2	30	-
BCH 204	General Biochemistry Practical II	C	1	-	45
CHM 212	Inorganic Chemistry I	R	2	30	-
STA 208	Statistical and Elementary Probability	R	4	45	-
GST 212	Philosophy, Logic and Human Existence	C	2	30	-
GST 204	Introduction to French	C	2	30	-
CTC 208	Tech Plus III	C	0	15	15
CUL- BCH 202	Genetic Biology	R	2	45	-
TOTAL UNITS			15		

Table 3: 300 Level Courses for Biochemistry Program

FIRST SEMESTER					
Course code	Course Title	Course status	Units	LH	PH
BCH 301	Enzymology	C	2	30	-
BCH 303	Metabolism of Lipids	C	2	30	-
BCH 305	Structure and Functions of Nucleic Acids	C	2	30	-
BCH 307	Membrane Biochemistry	C	2	30	-
BCH 309	Inorganic Biochemistry	C	1	15	-
GST 321	Character in Leadership III	C	2	30	-
CTC 311	Tech Pro Elevate I	C	0	15	15
CUL- BCH 311	Food and Nutritional Biochemistry	C	2	30	15
	Select one (1) Elective course	E	2		
CUL- BCH 321	Introduction to Environment Pollution and Toxicology	E	2	30	-
MCB 327	Microbial Physiology and Metabolism	E	2	30	-
TOTAL UNITS			17		
SECOND SEMESTER					
BCH 302	Metabolism of Carbohydrates	C	2	30	-
BCH 304	Metabolism of Amino acids & Protein	C	2	30	-
BCH 306	Analytical Methods in Biochemistry	C	3	30	45
BCH 308	Bioenergetics	C	1	15	-
BCH 398	Student Industrial work experience scheme (SIWES)	C	6	-	24 Weeks
GST 312	Peace and Conflict Resolution	C	2	30	-
ENT 312	Venture Creation	C	2	15	45
CTC 304	IT Tech Pro Elevate II	C	0	15	15
TOTAL UNITS			18		

Table 4: 400 Level Courses for Biochemistry Program

FIRST SEMESTER			
Course code	Course Title	Course status	Units
BCH 401	Advance Biochemical Methods	C	2
BCH 403	Biosynthesis of Macromolecules	C	2
BCH 407	Biotechnology & Genetic Engineering	R	2
BCH 409	Advanced Enzymology	R	2
BCH 411	Special Topics/Seminar in Biochemistry	C	2
BCH 415	Tissue Biochemistry	C	1
BCH 417	General Biochemistry Lab. II	C	1
BCH 423	Introductory Toxicology	R	2
BCH 425	Membrane Biochemistry	C	2
GST 411	Character in Leadership IV	C	2
CTC 407	Work Pro Experience I	C	0
TOTAL UNITS			18
SECOND SEMESTER			
BCH 499	Research Project	C	6
BCH 402	Biochemical Reasoning	C	1
BCH 408	Immunochemistry	C	3
BCH 404	Industrial Biochemistry	R	2
BCH 414	Bioinorganic Chemistry	R	1
BCH 416	Introductory Biotechnology	R	2
CTC 408	Work Pro Experience II	C	0
	Select one (1) Elective course	E	2
BCH 412	Plant Biochemistry	E	2
BCH 406	Pharmacological Biochemistry	E	2
	TOTAL UNITS		17

COURSE OUTLINE FOR INDUSTRIAL CHEMISTRY PROGRAMME 2025-2026**SESSION****Table 5: 100 Level Courses for Industrial Chemistry Programme**

1ST SEMESTER					
Course code	Course Title	Course status	Units	LH	PH
CHM 101	General Chemistry I	C	2	30	-
CHM 107	General Chemistry Practical I	C	1	-	45
PHY 101	General Physics I	C	2	30	-
PHY 107	General Physics Practical I	C	1	-	45
MTH 101	Elementary Mathematics I	C	2	30	-
GST 111	Communication in English I	C	2	15	45
GST 121	Character in Leadership I	C	1	30	-
COS 101	Introduction to Computing Sciences	C	3	30	45
CTC 101	Fundamentals of Tech Plus	C	0	15	-
CUL-ICH 111	Green Chemistry & Industrial Process of Materials	C	2	30	-
TOTAL UNITS			17		
2ND SEMESTER					
Course code	Course Title	Course status	Units	LH	PH
CHM 102	General Chemistry II	C	2	30	-
CHM 108	General Chemistry Practical II	C	1	-	45
BIO 102	General Biology II	C	2	30	-
BIO 108	General Biology Practical II	C	1	-	45
PHY 102	General Physics II	C	2	30	-
PHY 108	General Physics Practical II	C	1	-	45
MTH 102	Elementary Mathematics II	C	2	30	-
GST 112	Nigerian Peoples and Culture	C	2	30	-
GST 104	Tech Plus I	C	1	15	-
TOTAL UNITS			15		

Table 6: 200 Level Courses for Industrial Chemistry Programme

1ST SEMESTER					
Course codes	Course Title	Course Status	Unit	LH	PH
CHM 211	Organic Chemistry I	C	2	30	-
CHM 207	General Practical Chemistry I	C	1	-	45
ICH 213	Analytical Chemistry I	C	2	30	-
ICH 251	Process Science I	C	2	45	-
PHY 201	Heat and Thermodynamics	R	3	45	-
BCH 201	General Biochemistry	R	2	30	
COS 201	Computer Programming I	C	2	30	45
ENT 211	Entrepreneurship and Innovation	C	2	30	-
GST 203	Tech Plus II	C	0	0	-
GST 221	Character in Leadership II	C	1	15	-
	TOTAL		17		
2ND SEMESTER					
CHM 210	Physical Chemistry I	C	2	30	-
CHM 212	Inorganic Chemistry I	C	2	30	-
CHM 208	General Practical Chemistry II	C	1	-	45
ICH 252	Process Science II	C	2	45	-
GST 212	Philosophy, Logic and Human Existence	C	2	30	-
GST 204	Introduction to French	C	2	15	-
CTC 208	Tech Plus III	C	0	15	-
STA 208	Statistics and Elementary Probability	R	4	60	-
CUL- ICH 204	Basic Food Chemistry	R	2	45	-
	TOTAL		17		

Table 7: 300 Level Courses for Industrial Chemistry Programme

1ST SEMESTER					
Course codes	Course Title	Course Status	Unit	LH	PH
CHM 301	Physical Chemistry II	C	2	30	-
CHM 303	Organic Chemistry II	C	2	30	-
ICH 305	Petroleum Chemistry	C	2	30	-
ICH 317	Industrial Raw Material Resource Inventory	C	1	15	-
CHM 319	Glass Blowing Practical	C	1	-	45
CHM 311	Chemical Literature	R	1	15	-
ICH 331	Management and Chemical Industry I	C	2	30	-
GST 321	Character in Leadership III	C	2	30	-
CTC 311	Tech Pro Elevate I	C	0	15	-
CUL-ICH 321	Chemistry of Beauty and Cleansing Agents	R	2	30	15
	TOTAL		15		
2ND SEMESTER					
CHM 302	Inorganic Chemistry II	C	2	30	-
ICH 306	Polymer Chemistry	C	2	30	
ICH 314	Entrepreneurial skills in Industrial Chemistry	C	3	30	45
ICH 398	Industrial Attachment (SIWES)	C	6	-	24 weeks
GST 312	Peace and Conflict Resolution	C	2	30	-
ENT 312	Venture Creation	C	2	15	45
CTC 304	IT Tech Pro Elevate II	R	0	-	45
	TOTAL		17		

Table 8: 400 Level Courses for Industrial Chemistry Programme

1ST SEMESTER				
Course codes	Course Title	Course Status	Unit	Duration (Hour)
CHM 401	Organic Synthesis	C	3	3
CHM 403	Instrumental Analytical Methods	C	3	3
CHM 407	Inorganic Chemistry III	R	3	3
CHM 409	Physical Organic Chemistry	R	3	3
CHM 421	Chemistry of Industrial Processes	C	3	3
CHM 425	Seminar in Chemistry	C	2	
CHM 453	Management and Chemical Industry II	R	2	2
GST 411	Character Leadership IV	C	2	2
CTC 407	Work Pro Experience I	C	0	
	TOTAL		21	
2ND SEMESTER				
CHM 499	Research Project	C	6	
CHM 402	Macromolecular Chemistry II	R	3	3
CHM 404	Structure and Coordination Chemistry	R	3	3
CHM 406	Environmental Chemistry	R	3	3
CHM 414	Reaction Kinetics	R	3	3
CTC 408	Work Pro Experience II	C	0	
	Select one (1) Elective course from the list below	E	3	3
CHE 433	Medicinal Chemistry	E	3	3
CHE 438	Agrochemical and Chemotherapeutic	E	3	3
	TOTAL		21	