

UCH I

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS)

COIMBATORE - 641 029

Course Name B.S.C., CHEMISTRY

Curriculum and Scheme of Examination under CBCS

(Applicable to the students admitted during the Academic Year 2020-2021)

Semester	Part	Subject Code	Title of the Paper	Instruction hours/cycle	Exam. Marks			Duration of Exam (hours)	Credits
					CIA	ESE	TOTAL		
I	I	20TML101	Language I@	6	25	75	100	3	3
	II	20ENG101	English -I	6	25	75	100	3	3
	III	20UCH101	Core Paper- I Inorganic, Organic & Physical Chemistry - I	6	25	75	100	3	5
			Core Practical- I Inorganic qualitative analysis & Preparations	3	-	-	-	-	-
	III	20 UMA1A1/ 20UZO1A1	Allied A paper – I Mathematics/ Zoology – I	7/ 5	25/ 20	75/ 55	100/ 75	3	5/4
			Allied Zoology Practical	2	-	-	-	-	-
	IV	20EVS101	Environmental Studies **	2	-	50	50	3	2
Total				30	-	-	450/ 425	-	18/ 17
II	I	20TML202	Language II@	6	25	75	100	3	3
	II	20ENG202	English II	6	25	75	100	3	3
	III	20UCH202	Core Paper- II Inorganic, Organic & Physical Chemistry - II	6	25	75	100	3	5
	III	20UCH2CL	Core Practical- I Inorganic qualitative analysis & Preparations	3	40	60	100	3	2
	III	20UMA2A2/ 20UZO2A2	Allied A paper – II Mathematics/ Zoology – II	7/ 5	25/ 20	75/ 55	100/ 75	3	5/4
	III	20UZO2AL	Allied Zoology Practical	2	20	30	50	3	2
	IV	20VED201	Value Education-Moral & Ethics* *	2	-	50	50	3	2
Total				30	-	-	550/ 575	-	20/ 21
III	I	20TML303	Language III @	6	25	75	100	3	3
	II	20ENG303	English III	6	25	75	100	3	3
	III	20UCH303	Core Paper- III Inorganic, Organic & Physical Chemistry - III	4	25	75	100	3	4
	III		Core Practical- II Inorganic volumetric and organic qualitative analysis	3	-	-	-	-	-
	III	20UPH3A1	Allied B Paper – I Physics- I	4	20	55	75	3	4
	III		Allied Physics Practical- I	3	-	-	-	-	-

APPROVED BY THE ACADEMIC COUNCIL

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HOD OF CHEMISTRY,
KONGUNADU ARTS AND SCIENCE COLLEGE
COIMBATORE

UCH 2

IV	20UGA3S1	Skill Based Subject- I General Awareness (on line)	2	25	75	100	3	3	
	20TBT301/18T AT301/ 20UHR3N1	Basic Tamil*/ Advanced Tamil**/ Non Major elective -I **	2	-	75	75	3	2	
	Total		30	-	-	550	-	19	
IV	I	20TML404	Language IV @	6	25	75	100	3	3
	II	20ENG404	English IV	6	25	75	100	3	3
	III	20UCH404	Core paper- IV Inorganic, Organic & Physical Chemistry - IV	4	25	75	100	3	4
		20UCH4CM	Core Practical- II Inorganic volumetric and organic qualitative analysis	3	40	60	100	6	3
	III	20UPH4A2	Allied B Paper – II Physics- II	5	20	55	75	3	4
	III	20UPH4AL	Allied Physics Practical -I	2	20	30	50	3	2
	IV	20UCH4S2	Skill Based Subject -II Water pollution and management	2	25	75	100	3	3
	IV	20TBT402/18T AT402/ 20UWR4N2	Basic Tamil*/ Advanced Tamil**/ Non Major elective – II**	2	-	75	75	3	2
	Total		30	-	-	700	-	24	
V	III	20UCH505	Core Paper –V Spectroscopy	3	25	75	100	3	3
	III	20UCH506	Core Paper –VI Inorganic Chemistry	4	25	75	100	3	4
	III	20UCH507	Core Paper –VII Organic reaction mechanism	4	25	75	100	3	4
	III	20UCH508	Core Paper –VIII Physical Chemistry - I	4	25	75	100	3	4
	III	20UCH5E1	Major Elective -I	3	25	75	100	3	5
	III	20UCH6CN	Core Practical -III Gravimetric Analysis	3	-	-	-	-	-
	III	20UCH6CO	Core Practical-IV Physical Chemistry Experiments	4	-	-	-	-	-
	III	20UCH6CP	Core Practical –V Application Oriented practical	3	-	-	-	-	-
	IV	20UCH5X1	EDC - Chemistry in day today life	2	25	75	100	3	3
	-	20UCH5IT	Internship training****	Grade					
Total		30	-	-	600	-	23		

UCH 3

VI	III	20UCH609	Core Paper-IX Solid State And Coordination Chemistry	4	25	75	100	3	4
	III	20UCH610	Core Paper-X Chemistry Of Natural Products	5	25	75	100	3	4
	III	20UCH611	Core Paper-XI Physical Chemistry - II	4	25	75	100	3	4
	III	20UCH6E1	Major Elective - II	3	25	75	100	3	5
	III	20UCH 6Z1	Project***	-	20	80	100	-	5
	III	20UCH6CN	Core Practical- III Gravimetric Analysis	3	40	60	100	3	3
	III	20UCH6CO	Core Practical-IV Physical Chemistry Experiments	3	40	60	100	3	3
	III	20UCH6CP	Core Practical -V Application Oriented Subject practicals	4	40	60	100	3	4
	IV	20UCH6S3	Skill Based Subject- III Food chemistry	2	25	75	100	3	3
Total				30	-	-	900	-	35
V	20NCC/NSS/YRC/ PYE/ECC/RRC/ WEC101#	Extension Activities*	-	50	-	50	-	-	1
Grand Total				-	-	-	3800	-	140

Note :

- CBCS – Choice Based Credit system
CIA – Continuous Internal Assessment
ESE – End of Semester Examinations

@ Hindi/Malayalam/ French/ Sanskrit – 20HIN/MLM/FRN/SAN101 - 404

* - No End-of-Semester Examinations. Only Continuous Internal Assessment (CIA)

** - No Continuous Internal Assessment (CIA). Only End-of-Semester Examinations (ESE)

*** Project Report – 60 marks; Viva voce – 20 marks; Internal-20 marks

**** The students shall undergo an Internship training / field work for a minimum period of 2 weeks at the end of the fourth semester during summer vacation and submit the report in the fifth semester. The report will be evaluated for 100 marks along with the internal viva voce by the respective Faculty. According to their marks, the grades will be awarded as given below.

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Marks %	Grade
85 - 100	O
70 - 84	D
60 - 69	A
50 - 59	B
40 - 49	C
< 40	U (Reappear)

Major Elective Papers

(2 papers are to be chosen from the following 6 papers)

1. Polymer technology
2. Nano and green Chemistry
3. Pharmaceutical Chemistry
4. Agricultural Chemistry
5. Dairy Chemistry
6. Leather Chemistry

Non-Major Elective Papers

1. Human Rights
2. Women's Rights
3. Consumer Affairs

Sub. Code & Title of the Extra Departmental Course (EDC) :

20UCH5X1 - Chemistry in day today life

List of Extension Activities:

1. National Cadet Corps (NCC)
2. National Service Scheme (NSS)
3. Youth Red Cross (YRC)
4. Physical Education (PYE)
5. Eco Club (ECC)
6. Red Ribbon Club (RRC)
7. Women Empowerment Cell (WEC)

Note: In core/ allied subjects, no. of papers both theory and practical are included wherever applicable. However, the total credits and marks for core/allied subjects remain the same as stated below.

Tally Table:

S.No.	Part	Subject	Marks	Credits
1.	I	Language – Tamil/Hindi/Malayalam/ French/ Sanskrit	400	12
2.	II	English	400	12
3.	III	Core – Theory/Practical	1600	60
		Allied	400	20
		Electives/Project	300	15
4.	IV	Basic Tamil / Advanced Tamil (OR) Non-major electives	150	4
		Skill Based subject	300	9
		EDC	100	3
		Environmental Studies	50	2
		Value Education	50	2
5.	V	Extension Activities	50	1
		Total	3800	140

- 25 % CIA is applicable to all subjects except JOC, COP and SWAYAM courses which are considered as extra credit courses.
- The students should complete a SWAYAM-MOOC before the completion of the 5th semester and the course completed certificate should be submitted to the HOD. Two extra credits will be given to the candidates who have successfully completed.
- A Field Trip preferably relevant to the course should be undertaken every year.

Components of Continuous Internal Assessment

Components		Marks	Total
Theory			
CIA I	75	(75+75 = 150/10)	25
CIA II	75		
Assignment/Seminar		5	
Attendance		5	
Practical			
CIA Practical		25	40
Observation Notebook		10	
Attendance		5	
Project			
Review		15	20
Regularity		5	

BLOOM'S TAXONOMY BASED ASSESSMENT PATTERN

K1-Remembering;K2-Understanding;K3-Applying;K4-Analyzing;K5-Evaluating

1. Theory Examination - Part I, II & III**(i) CIA I & II and ESE: 75 Marks**

Knowledge Level	Section	Marks	Description	Total
K1 - K2 Q1 to Q10	A (Answer all)	10 x 1 = 10	MCQ	75
K2 - K4 Q11 to Q15	B (Either or pattern)	5 x 5 = 25	Short Answers	
K2 - K4 Q16 to Q20	C (Either or pattern)	5 x 8 = 40	Descriptive / Detailed	

(ii) CIA I & II and ESE: 55 Marks

Knowledge Level	Section	Marks	Description	Total
K1 - K2 Q1 to Q10	A (Answer all)	10 x 1 = 10	MCQ	55
K2 - K4 Q11 to Q15	B (Either or pattern)	5 x 3 = 15	Short Answers	
K2 - K4 Q16 to Q20	C (Either or pattern)	5 x 6 = 30	Descriptive / Detailed	

2. Practical Examination:

Knowledge Level	Section	Marks	Total
K3	Experiments	50	60
K4		Record Work	
K5			

3. Project Viva Voce:

Knowledge Level	Section	Marks	Total
K3	Project Report	60	80
K4		Viva voce	
K5			