FATIMA COLLEGE (AUTONOMOUS)

Re-Accredited with "A" Grade by NAAC (3rd Cycle)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Maryland, Madurai- 625 018, Tamil Nadu, India

NAME OF THE DEPARTMENT : CHEMISTRY

NAME OF THE PROGRAMME : UG

PROGRAMME CODE : UACH

ACADEMIC YEAR : 2021-2022

FATIMA COLLEGE (AOTO NOMOUS) - Madurai 18

The Minutes of the Board of Studies
Department of Chemistry
(To be implemented from 2021-2022 onwards.

Convened on 15.4.2021
Through on-line Mode.

Members Present

S.No	Names.	Designation.
1.	Dr. B. MEDONA. Head & Associate Professor, Department of Chem, Fatima College.	Head of the Department
2.	Dr. S. Murugesan, Prof Dept of Inorg chem, SOC, MKU, Madurai-21.	University Nominee. S/hmugesan
3.	Dr. S. Abraham John, Prof of Chemistry, GRI, Dindigul.	Subject Expert S.A.
4.	Dr. V. Rama Head & Associate Prof of chem, Sarah Tucker College, Tirunelveli	Subject Expert
5.	Mr. S. Manikandan, Par pharma, R&D Dept Senior Research Associate Chengalpattu	Industrialist.
6.	Miss. P. Sharmila PGT Chemistry, Keswick ICSE School, NET Trainee	Alumna.

	Names	Staff Members
1.	Dr. S. Sukumari	Sue S.
2.	Dr. A. Rajeswari	
3.	Dr. Sr. M. Arul Mary	
4.	Dr. B. Vinosha	
5	Dr. B. Sugandhana	
6.	Mrs. Rm Nagalakshmi	
7.	Dr. M. Priyadharsani	
8.	Dr. V. Arul Deepa	
9.	Dr. K.M. Subimol	
10	Dr. R. Sarika.	Sarika

Agenda of the Board of Studies:

1. Presentation of Action taken Report

S.No	Common Suggestion from the previous Board	Action taken for Academic Year 2020
1.	Two Physical Chem Practical Courses to be offered in the end of III & IV Sem (PG)	Implemented from 20-21
2.	A New paper on Green chemistry in III Sem (PG) finalised.	offered from 2020-2021 onw
3.	Overall OBE Syllabi for UG & PG Programmes reviewed.	Suggestions in 19C3CC7, 19C3CC8, 19C3CC9, 1 19C4CC10, 19C5CC1 19C5CC14, 19C5SB4 and 19PG3C13 in c

New Courses Introduced.

SNo	Course Code	Course title	Relevance To				Scope for		
			L	R	N	G	Emp	Entre	SD.
1.	21C2SLA1	House Hold Products & Marketting		R			Emp	Entre.	
2	21PGC2SL1	Research Methodology.				G.	Emp		SD.
3.	19C3SB1(A)	Dairy Chemistry			N		Emp	Entr.	
4	19C4SB2(A)	Health and Chemistry			N				SD.
5	19C1EDC/ 19C2EDC. 21C1EDC/ 21C2EDC.	Analysis of Soil Water, food cosmetics oil			N		Emp	Entr.	S.D.

Revised Courses

I

S No	Course code	Course title	Number and title of Unit revised with the revised content	% of revision	Relevance TO						Scope for
					L	R	N	G	EMP	ENTRE	SD
1.	Crash Course	Clinical Chemistry	All	100%			N				Emp SD
2.	Crash Course	LAB Technician Beginners Course	All.	100%.			N				EMP S.D

1. Rubrics for Internship - PG

S.N	C1 20 Marks	C2 20 Marks	CIA Total 40	External 60 Marks
1.	Work Carried Out	Report		Thesis.

Rubrics for Project – Individual Project f
PG.

S.no	C1 20 Marks	C2 20 Marks	CIA Total.	External 60 Ma
1.	Initial Presentation	Thesis writing.	40	Viva Voce wi External Exa

Rubrics for Project – Group Project for U

SNO	C1 (20 Marks)	C2 (20 Marks	CIA Total	External 60 Mar
1.	Work Carried	Report	4.	Presentatio

Other Suggestions:

1. 21PGC2SL1 – Research Methodology.
Instead of Unit V, Unit with plagiaris
Data computation, Pictures and graphs.
linear and Nonlinear regression and
Regression Co-efficient can be added.

2. 19CHSB2(A) – Health and chemistry
CTScan, Mammogram, MRI, Contrast
agents, Angiogram and Angioplasty to be
added.

In Enzyme Unit :– Drug action

before and after meal, bioavailability and action, immediate Release and extended release of drugs to be added

3. 19C1EDC/19C2EDC - Analysis of Soil, Water, food, cosmetics and oil.
Instead of fertilizers oil analysis is included.

4. Skill embedded Crash Course
- Instead of Pharmaceutical and diagonastic Chemistry it can be named as 'Clinical Chemistry.

University Nominee.

Subject Nominee

Subject Expert

Industrialist

Alumna.

B. Medona.

15/04/2024

FATIMA COLLEGE (AUTONOMOUS), MADURAI-18

DEPARTMENT OF CHEMISTRY

(For those who joined in June 2019 onwards)

(FOR THE ACADEMIC YEAR 2021-2022)

PROGRAMME CODE : UACH

Semester	COURSE CODE	COURSE TITLE	HRS	CREDIT	CIA Mks	ESE Mks	TOT. Mks
I	19C1CC1	Inorganic Chemistry –I (Atomic Structure, Periodic Table, Acid and Bases, Non-Aqueous Solvents and s-Block Elements)	4	3	40	60	100
	19C1CC2	Organic Chemistry –I (Reaction mechanism, alkanes, cycloalkanes and alkyl halides)	5	4	40	60	100
	19C1CC3	VolumetricAnlaysis-I	3	2	40	60	100
	19Z1ACC1	Allied Chemistry I	3	3	40	60	100
	19N1ACC1	Allied Chemistry -I	3	3	40	60	100
	19C1NME1	Profitable home Industries	2	2	40	60	100
	19Z1ACC2	Allied Chemistry Practicals-I	2	2	40	60	100
	19N1ACC2	Allied Chemistry Practicals-I	2	2	40	60	100
	19C2CC4	Inorganic Chemistry –II (theories of hard and soft acids –bases, chemical bonding and chemistry of group iii, iv, v & vi elements)	4	3	40	60	100
	19C2CC5	Organic Chemistry –II (Alkenes,alkynes,alkadienes, organo metallic compounds, alcohols and ethers)	5	4	40	60	100

II	19C2CC6	VOLUMETRIC ANLAYSIS-II	3	2	40	60	100
	19Z2ACC3	Allied Chemistry -II	3	3	40	60	100
	19N2 ACC3	Allied Chemistry -II	3	3	40	60	100
	19Z2ACC4	Allied chemistry Practicals	2	2	40	60	100
	19N2ACC4	Allied chemistry Practicals	2	2	40	60	100
	19C2NME2	Profitable home Industries	2	2	40	60	100
III	19C3CC7	Organic &Inorganic Chemistry (Aromatic Hydrocarbons, Aromatic Electrophilic, Nucleophilic Substitution, Chemistry Of VIIGroup, d-Block Elements)	5	4	40	60	100
	19C3CC8	Physical chemistry-I (Gaseous state, Solutions,dilute solutions,radio activity & Nuclear transformations and nuclear chemistry)	4	3	40	60	100
	19C3SB1	Agricultural chemistry	2	2	40	60	100
	19C3SB1(A)	Dairy Chemistry	2	2	40	60	100
	19C3CC9	Inorganic Qualitative Analysis	3	2	40	60	100
	19P3ACC1	Allied Chemistry –I (Theory behind chemical bonding, quantitative and qualitative analysis, kinetics of chemical reactions and thermodynamics)	3	3	40	60	100
	19P3ACC2	Allied Chemistry Practicals-I	2	2	40	60	100
	19C4CC10	Inorganic Chemistry-III (Coordination chemistry)	5	4	40	60	100

IV	19C4CC11	Physical chemistry-II (Chemical Kinetics, Solid State And Distribution Law)	4	3	40	60	100
	19C4SB2	Natural and Synthetic Dyes	2	2	40	60	100
	19C4SB2(A)	Health and Chemistry	2	2	40	60	100
	19C4CC12	Organic Qualitative Analysis	3	2	40	60	100
	19P4ACC3	Allied Chemistry –I	3	3	40	60	100
	19P4ACC4	Allied Chemistry practicals-II	3	3	40	60	100
V	19C5CC13	Organic chemistry –III (Aldehydes And Ketones, CarboxylicAcids And Their Derivatives, Steroisomerism, Amines And Diazo Compounds And Carbohydrates)	6	4	40	60	100
	19C5CC14	Physical chemistry –III (Thermodynamics, Phase Rule & GroupTheory)	6	4	40	60	100
	19C5ME1	Spectroscopy	5	5	40	60	100
	19C5ME2	Bio-Chemistry	5	5	40	60	100
	19C5SB3	Medicinal chemistry	2	2	40	60	100
	19C5SB4	Nano Chemistry	2	2	40	60	100
	19C5CC15	INORGANIC PRACTICALS (Gravimetric Analysis)	4	2	40	60	100
	19C5CC16	GREEN CHEMISTRY PRACTICALS	4	2	40	60	100

VI	19C6CC17	Organic chemistry –IV (Polynuclear Hydrocarbons, Heterocyclic Compounds, Amino Acids And Proteins)	5	4	40	60	100
	19C6CC18	Physical chemistry-IV (Electrolytic Conductance And Electrochemistry)	5	4	40	60	100
	19C6ME3	Advanced Organic Chemistry	5	5	40	60	100
	19C6ME4	Polymer Chemistry	5	5	40	60	100
	19C6SB5	Computers in Chemistry	2	2	40	60	100
	19C6SB6	Green chemistry	2	2	40	60	100
	19C6CC19	Physical Practicals	6	4	40	60	100
	19C6CC17	Organic chemistry –IV (Polynuclear Hydrocarbons, Heterocyclic Compounds, Amino Acids And Proteins)	5	4	40	60	100

CHEMISTRY- SELF LEARNING NEW COURSES

COURSE CODE	COURSE TITLE		Credits	Semester in which the course is offered	CIA Mks	ESE Mks	Total Marks

21C2SLA1	House Hold Products and Marketing		2	II	40	60	100

FATIMA COLLEGE (AUTONOMOUS) MADURAI-18
SEMESTER-III
(For those who joined in June- 2021 onwards)

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS /WEEK	CREDITS
UACH	19C3SB1(A)	Dairy chemistry	SKILL BASED	2	2

Course Objective:

- To provide an understanding of the bioactive role, chemical interactions of milk constituents their components
- Their effects of nutritional quality, functional properties important to health.

Course Outcomes

After successful completion of the course, the students should be able to

- The Composition, physical and chemical properties of milk.·
- Know the minerals and vitamins present in the milk. ·
- Gain the skills to develop milk powder processing
- Gain knowledge about the chemistry of milk and milk products

UNIT-I: Introduction (6 hrs)
UNIT-II : Chemistry of carbohydrates (6 hrs)
UNIT-III: Milk Fat (6hrs)
UNIT-IV: Milk and milk powder processing (6 hrs)
UNIT-V : Minerals and vitamins of milk (6hrs)

Unit-I. Introduction

Milk - definition – composition of milk – physical and chemical properties of milk -factors affecting yield and composition of milk – inter relationship between the milk constituents- effect of heat, acid and enzymes on milk- nutritive value of milk.

Unit -II. Chemistry of carbohydrates

Chemistry of carbohydrates – lactose structure – physical forms – action of bacteria on lactose –browning reaction - physiological properties of lactose - uses of lactose.

III. Milk fat

Milk fat - structure and chemical nature of milk fat –size of fat globules – fat constants - oxidation and its control – auto oxidation

IV. Milk and milk powder processing:

Introduction – different methods of processing of milk- pasteurization – VHT milk- HTST milk – homogenized milk - skimmed milk powder – whole dry milk powder – butter milk powder.

V. Minerals and vitamins of milk:

Distribution of major minerals in milk- trace elements in milk- salt composition on milk –

significance and factors affecting salt balance - protein and mineral interaction. Vitamins in milk: nutrional importance and structure.

References:

1.Jayashree Ghosh, Fundemental concepts of Applied chemistry, S.Chand& company LTD. First edition-2006.

2. K.Bagavathi Sundari, " Applied Chemistry" MJP Publishers, Chennai-2006.

3.Mathur MP, Roy DD and Dinakar P.1999. Textbook of Dairy Chemistry. ICAR.

4. Anantha Krishnan, C.P., (1991), Technology of milk processing, Sri Lakshmi Publications, Chennai -10.

5. Eeckles.CH.Combs, W.B and Macy.H (1955), Milk and Milk Products, Tata Mc Graw Hill Publishing Co.Pvt.Ltd., New Delhi.

6. Sukumar De (1980), Outlines of Dairy Technology, Oxford University Press, New Delhi.

7. Wong N.P, Jenness.R. Keeney.M. Marth E.H (1998); Fundamentals of Dairy Chemistry, CBB Publishers and Distributors, New Delhi.

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
Unit-I. Introduction				
1.1	Milk - definition – composition of milk	1	Chalk & Talk	Black Board
1.2	physical and chemical properties of milk	1	Chalk & Talk	Black Board
1.3	factors affecting yield and composition of milk inter relationship between the milk constituents	2	Chalk & Talk	PPT & White board
1.4	effect of heat, acid and enzymes on milk- nutritive value of milk.	2	Chalk & Talk	Black Board
Unit -II. Chemistry of				

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
carbohydrates				
2.1	, Chemistry of carbohydrates – lactose structure	2	Chalk & Talk	Black Board
2.2	physical forms	1	Chalk & Talk	Black Board
2.3	action of bacteria on lactose – browning reaction	2	Chalk & Talk	Black Board
2.4	physiological properties of lactose - uses of lactose.	1	Chalk & Talk	PPT & White board
III. Milk fat				
3.1	Milk fat – structure, chemical nature of milk fat	2	Chalk & Talk	Black Board
3.2	size of fat globules	2	Chalk & Talk	PPT & White board
3.3	fat constants - oxidation and its control – auto oxidation	2	Chalk & Talk	Black Board
IV. Milk and milk powder processing:				
4.1	Introduction – different methods c processing of milk -	2	Chalk & Talk	PPT & White board
4.2	pasteurization – VHT milk- HTST milk – homogenized milk	2	Chalk & Talk	Black Board
4.3	skimmed milk powder – whole dry milk powder – butter milk powder.	2	Chalk & Talk	Black Board

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
V. Minerals and vitamins of milk:				
5.1	Distribution of major minerals in milk trace elements in milk- salt composition on milk	2	Chalk & Talk	lab
5.2	significance and factors affecti salt balance - protein and mine interaction	2	Chalk & Talk	lab
5.3	Vitamins in milk: nutrional importance and structure.	2	Chalk & Talk	lab

Levels	C1	C2	C3	C4	Total Scholastic Marks	Non Scholastic Marks C5	CIA Total	% of Assessment
	Session - wise Average 5 Mks.	Better of W1, W2 5 Mks	M1+M2 5+5=10 Mks.	MID-SEM TEST 15 Mks	35 Mks.	5 Mks.	40Mks.	
K1	**5**	**-**	**-**	**2 ½**	**7.5**	-	**7.5**	18.75 %
K2	**-**	**5**	**4**	**2 ½**	**11.5**	-	**11.5**	28.75 %
K3	**-**	**-**	**3**	**5**	**8**	-	**8**	20 %

K4	-	-	3	5	8	-	8	20 %
Non Scholastic	-	-	-	-		5	5	12.5 %
Total	5	5	10	15	35	5	40	100 %

CIA	
Scholastic	**35**
Non Scholastic	**5**
	40

- ✓ **All the course outcomes are to be assessed in the various CIA components.**
- ✓ **The levels of CIA Assessment based on Revised Bloom's Taxonomy for I UG are :**

K1- Remember, **K2**-Understand, **K3**-Apply, **K4**-Analyse

- ✓ **The I UG course teachers are requested to start conducting S1, W1, M1,**

in due intervals of time.

EVALUATION PATTERN

SCHOLASTIC				**NON - SCHOLASTIC**	**MARKS**		
C1	**C2**	**C3**	**C4**	**C5**	**CIA**	**ESE**	**Total**
5	**10**	**15**	**5**	**5**	**40**	**60**	**100**

C1 – Average of Two Session Wise Tests

C2 – Average of Two Monthly Tests

C3 - Mid Sem Test

C4 – Best of Two Weekly Tests

C5 – Non - Scholastic

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES	KNOWLEDGE LEVEL (ACCORDING TO REVISED BLOOM'S TAXONOMY)	PSOs ADDRESSED
CO 1	Knowledge about milk and milk products	K1& K2	PSO7
CO 2	describe the various types of factors affecting milk and its products	K1 & K2	PSO6
CO 3	Chemistry involved in the processing of milk	K1, K2&K3	PSO6
CO 4	Examine the major minerals present in the milk	K1 & K3	PSO6 & PSO7
CO 5	Calculate nutrional importance of milk	K1 & K3	PSO5

Mapping COs Consistency with PSOs

CO/ PSO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO1	2	2	2	2	2	2	3	2
CO2	2	2	2	2	2	3	2	2
CO3	2	2	2	2	2	3	2	2
CO4	2	2	2	2	2	3	3	2
CO5	2	2	2	2	3	2	2	2

Mapping of C0s with POs

CO/ PSO	PO1	PO2	PO3	PO4
CO1	3	1	1	3
CO2	2	2	3	3
CO3	2	1	1	3
CO4	3	1	2	3
CO5	2	2	1	3

Note: ♦ Strongly Correlated – **3** ♦ Moderately Correlated – **2**

♦ Weakly Correlated -**1**

COURSE DESIGNER:

1. **Dr.**

A.RAJESWARI

Forwarded By

HOD'S Signature

FATIMA COLLEGE (AUTONOMOUS) MADURAI-18

II B.Sc CHMISTRY

SEMESTER –IV

For those who joined in 2021 onwards

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS/WEEK	CREDITS
UACH	19C4SB2(A)	HEALTH and CHEMISTRY	Skill Based	2	2

COURSE DESCRIPTION

This course deals with the basic knowledge about the significances of health and hygiene in every day human life.This paper also provides a focus with special emphasis on importance of common drugs, enzymes,harmones and also deals with the causes for common diseases

COURSE OBJECTIVES

After completion of the course the students should be able to :

- Acquire the basic knowledge about the significances of food and hygiene
- Classify the given drugs whether they belong to antipyretics,analgesics, depressants etc
- Interpret the structure and mechanism of enzyme action
- Catagorize and identify the function of the different types of harmones
- Analyse the reason for common diseases affecting the human body

UNIT I -HEALTH AND HYGIENE (6 HRS)

Definition: Food, Food Pyramid - Health-Hygiene- mal, under and over nutrition, theircauses and remedies.sanitation.

Self study:

Disinfectants and antiseptics,

UNIT- II COMMON DRUGS (6 HRS)

Narcotic analgesics (only morphine compds). Antipyretic analgesics (acetyl salicyclic acid, p – amino – phenol derivatives). Anticonvulsant drugs (sodium valproate, hydantoins). Muscle relaxants.(,glycerylguaiacolate, diazepam) Antibiotics (pencillin, streptomycin, tetracyclin,) Cardiovascular drugs-nitrates, beta blockers(propranalol and atinelol) and calcium channel

blockers.

Self study:

Depressants-Sedatives and hypnotics

UNIT- III - BODY FLUIDS (6 HRS)

Blood volume, blood groups, coagulation of blood , Plasma lipoprotiens ,blood pressure, Hyperchromic and hypochromic anaemia, ,haemoglobin. Arteriosclerosis, Blood tranfusion.

Self study :

Blood sugar and diabetes.

UNIT- IV ENZYMES AND HARMONES (6 HRS)

Classification of enzymes, specificity, and Mechanism of enzyme action

Classsification of harmones,functions of thyroxine ,insulin and progesterone

Self study:

Sex harmones-eastrogen and testosterone

UNIT- V COMMON DISEASES (6 HRS)

Causes for common diseases - fever,cold,head ache ,stomach ache, night blindness, ulcer, diarrhea, Jaundice, vomiting and allergies

Self study:

Medicines used for the above diseases

TEXT BOOKS

1.JayashreeGhosh, A text book of Pharmaceutical Chemistry, S.Chand and Co. Ltd, 1999.

2.S.C. Rastogi, Biochemistry, Tata McGraw Hill Publishing Co., 1993

3.AshutoshKar, Medicinal Chemistry, Wiley Eastern Limited, New Delhi, 1993.

REFERENCES

1. Alex V Ramani, Food Chemistry, MJP Publishers, Chennai, 2009

2. Deb A C, Fundamentals of Biochemistry, New Central Book Agency, Calcutta, 1994.

3. Satake M and Mido Y, Chemistry for Health Science, Discovery Publishing House,New Delhi, 2003.

4.Le Roy, Natural and synthetic organic medicinal compounds, Ealemi., 1976.

5.B.L. Oser, Hawk's physiological chemistry, 14th edition, Tata-McGraw - Hill Publishing Co.Ltd, 1965

6.O. Kleiner and J. Martin, Bio-Chemistry, Prentice-Hall of India(P) Ltd, New Delhi

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -IHEALTH AND HYGIENE				
1.1	Food and Food Pyramid	1	Chalk & Talk	PPT & White board
1.2	Health-Hygiene	2	Chalk &Talk	Black Board
1.3	mal, under and over nutrition, theircauses and remedies	2	Chalk & Talk	PPT & White board
1.4	sanitation	1	Chalk & Talk	Black Board
UNIT-IICOMMON DRUGS				
2.1	Narcotic analgesics (only morphine).	1	Chalk & Talk	Black Board
2.2	Anticonvulsant drugs (sodium valproate, hydantoins)	1	Chalk & Talk	PPT & White board
2.3	Antipyretic analgesics (acetyl salicyclic acid, p – amino – phenol derivatives).	1	Chalk & Talk	Black Board
2.4	Muscle relaxants.(,glycerylguaiacolate, diazepam)	1	Chalk & Talk	PPT & White board
2.5	Antibiotics (pencillin, streptomycin, tetracyclin)	2	Chalk & Talk	PPT & White board
UNIT -IIIBODY FLUIDS				
3.1	Blood volume, blood groups, coagulation of blo,	1	Chalk & Talk	Black Board
3.2	Plasma lipoprotiens,blood pressure	1	Chalk & Talk	PPT & White board
3.3	Hyperchromic and hypochromic anaemia, ,haemoglobin	2	Chalk & Talk	Black Board
3.4	Arteriosclerosis, Blood tranfusion	2	Black Board	Black Board

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -IVENZYMES AND HARMONES				
4.1	Classification of enzymes, specificity -	1	Chalk & Talk	PPT & White board
4.2	Mechanism of enzyme action	1	Chalk & Talk	Black Board
4.3	Classsification of harmones, .	2	Chalk & Talk	Black Board
4.4	functions of thyroxine ,insulin and progesterone	2	Chalk & Talk	PPT & White board
UNIT-V COMMON DISEASES				
5.1	Causes for common diseases - fever,cold	2	Chalk & Talk	labPPT & White board
5.2	head ache ,stomach ache, night blindnessulcer,	2	Chalk & Talk	PPT & White board
5.3	diarrhea, Jaundice, vomiting and allergies	2	Chalk & Talk	PPT & White board

Levels	C1	C2	C3	C4	Total Scholastic Marks	Non Scholastic Marks C5	CIA Total	% of Assessment
	Session - wise Average 5 Mks.	Better of W1, W2 5 Mks	M1+M2 5+5=10 Mks.	MID-SEM TEST 15 Mks	35 Mks.	5 Mks.	40Mks.	
K1	**5**	**-**	**-**	**2 ½**	**7.5**	-	**7.5**	18.75 %
K2	**-**	**5**	**4**	**2 ½**	**11.5**	-	**11.5**	28.75 %

K3	-	-	**3**	**5**	**8**	-	**8**	20 %
K4	-	-	**3**	**5**	**8**	-	**8**	20 %
Non Scholastic	-	-	-	-		**5**	**5**	12.5 %
Total	**5**	**5**	**10**	**15**	**35**	**5**	**40**	**100 %**

CIA	
Scholastic	**35**
Non Scholastic	**5**
	40

- ✓ **All the course outcomes are to be assessed in the various CIA components.**
- ✓ **The levels of CIA Assessment based on Revised Bloom's Taxonomy for I UG are :**

K1- Remember, **K2-**Understand, **K3-**Apply, **K4-**Analyse

- ✓ **The I UG course teachers are requested to start conducting S1, W1, M1, in due intervals of time.**

EVALUATION PATTERN

SCHOLASTIC				**NON - SCHOLASTIC**	**MARKS**		
C1	**C2**	**C3**	**C4**	**C5**	**CIA**	**ESE**	**Total**
5	**10**	**15**	**5**	**5**	**40**	**60**	**100**

C1 – Average of Two Session Wise Tests

C2 – Average of Two Monthly Tests

C3 - Mid Sem Test

C4 – Best of Two Weekly Tests

C5 – Non - Scholastic

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES	KNOWLEDGE LEVEL (ACCORDING TO REVISED BLOOM'S TAXONOMY)	PSOs ADDRESSED
CO 1	Define the term health and hygiene	K1	PS04
CO 2	Describe the various types of druds and their uses	K2	PSO1
CO 3	Realise theimportance of maintenance of blood pressure	K3	PS03
CO 4	Analyse the adverse effect of hormonal imbalance	K4	PS02
CO 5	Recognise the reason for disease formation	K3	PS03

COURSE DESIGNER:
Mrs.RM.Nagalakshmi

Forwarded By

HOD'S Signature

FATIMA COLLEGE (AUTONOMOUS) MADURAI-18

Self-Learning Inter-Disciplinary Courses in UG

SEMESTER-I

(For those who join from June- 2021 onwards)

DEPARTMENT OF CHEMISTRY AND COMMERCE

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS /WEEK	CREDITS
------	21C2SLA1	HOUSE HOLD PRODCUTS AND MARKETING	SELF LEARNING	2	2

COURSE DESCRIPTION

To enable students to have basic understanding & knowledge about the House hold chemicals and marketing

COURSE OBJECTIVE:

This course is designed for the students to learn about

- To study the basic concepts involved in the preparation of house hold chemicals
- To study the procedure involved in marketing of house hold prepared articles

Course out –comes

- To cultivate the entrepreneur skills of students.
- To inculcate the synthetic importance of house hold chemicals
- To synthesize the profitable house hold chemicals at home.
- To get hands on experience in field of synthesis cum marketing
- To learn the economic importance of house hold chemicals in marketing fields

UNITS

UNIT – 1 – BASIC CONCEPTS INVOLVED IN THE PREPARATION OF HOUSE HOLD LIQUID CHEMICAL PRODUCTS (6 HRS.)

Preparation of Phenoyl – Black phenoyl – white phenoyl – synthetic importance – Preparation of Ink – synthetic importance – Preparation of shampoos – Synthetic importance – Preparation of sanitizers – synthetic importance – Preparation of Antiseptics and disinfectants – uses.

UNIT – 2 – BASIC CONCEPTS INVOLVED IN THE PREPARATION OF HOUSE HOLD SOLID CHEMICAL PRODUCTS (6 hrs)

Preparation of Talcum powder – Lipstick – varnishing creams – synthetic importance – Preparation of detergent powder – cleaning powder -– Synthetic importance – Preparation of candles – Chalk crayons – Computer sambrani -synthetic importance .

UNIT – 3 –Practicals - Hands On training in the preparation of HOUSE HOLD SOLID CUM LIQUIDCHEMICAL PRODUCTS (6 hrs)

- Candles
- Black phenoyl
- White phenoyl
- Sanitizers
- Computer sambrani
- Detergent powder

UNIT – 4 –Product and Pricing (6 hrs)

Definition – Product life cycle – New product development – Pricing – methods of pricing – Psychological pricing – Dual pricing –Monopoly Pricing – Skimming Pricing – Penetration pricing

UNIT – 5 –Physical Distribution and promotion (6 hrs)

Advertising —Procedure – wholesaler- retailer- ultimate consumer -sales promoter at consumers level – coupons, price – off – offer (discount), samples –Advertising -Advantages and disadvantages

REFERENCES:

1.Jayashree Gosh, Textbook of Pharmaceutical Chemistry, S.Chand&Chand publications New Delhi (1997).

2. Marketing – Dr. Rajam Nair and Sanjith .R. Nair – sultan chand and sons – 7th edition – 2018 (print)

3. Marketing – R.S.N., Pillai., chand and company ltd ., 2010

Levels	C1	C2	C3	C4	Total Scholastic Marks	Non Scholastic Marks C5	CIA Total	% of Assessment
	Session - wise Average 5 Mks.	Better of W1, W2 5 Mks	M1+M2 5+5=10 Mks.	MID-SEM TEST 15 Mks	35 Mks.	5 Mks.	40Mks.	
K1	**5**	**-**	**-**	**2 ½**	**7.5**	-	**7.5**	18.75 %
K2	**-**	**5**	**4**	**2 ½**	**11.5**	-	**11.5**	28.75 %
K3	**-**	**-**	**3**	**5**	**8**	-	**8**	20 %
K4	**-**	**-**	**3**	**5**	**8**	-	**8**	20 %
Non Scholastic	**-**	**-**	**-**	-		**5**	**5**	12.5 %
Total	**5**	**5**	**10**	**15**	**35**	**5**	**40**	**100 %**

CIA	
Scholastic	**35**
Non Scholastic	**5**
	40

EVALUATION PATTERN

SCHOLASTIC					NON - SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	C6	CIA	ESE	Total
10	10	5	5	5	5	40	60	100

UG CIA Components					
			Nos		
C1	-	Test (CIA 1) - Theory	1	-	10 Mks
C2	-	Test (CIA 2) - practical	1	-	10 Mks
C3	-	Assignment	1	-	5 Mks
C4	-	Open Book Test/PPT	2 *	-	5 Mks
C5	-	Quiz	2 *	-	5 Mks
C6	-	Attendance		-	5 Mks

**** The best out of two will be taken into account***

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES	KNOWLEDGE LEVEL (ACCORDING TO REVISED BLOOM'S TAXONOMY)	PSOs ADDRESSED
CO 1	To cultivate the entrepreneur skills of students.	K1	PSO5

CO 2	To inculcate the synthetic importance of house hold chemicals	K1, K2,	PSO2
CO 3	To synthesize the profitable house hold chemicals at home.	K1 & K3	PSO6
CO 4	To get hands on experience in field of synthesis cum marketing	K1, K2, K3 &	PSO7
CO 5	To learn the economic importance of house hold chemicals in marketing fields	K2 & K4	PSO7

Mapping of C0s with PSOs

CO/ PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PSO 8
CO1	1	1	1	1	3	1	1	1
CO2	1	2	1	1	1	1	1	1
CO3	1	1	1	1	1	3	1	1
CO4	1	1	1	1	1	1	3	1
CO5	1	1	1	1	1	1	2	1

Mapping of C0s with Pos

CO/ PSO	PO1	PO2	PO3	PO4	PO5
CO1	1	1	3	1	1
CO2	1	3	1	1	1
CO3	1	1	1	2	1
CO4	1	1	1	1	3
CO5	1	3	1	1	1

Note: ♦ Strongly Correlated – **3** ♦ Moderately Correlated – **2**

♦ Weakly Correlated -**1**

COURSE DESIGNER:

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Forwarded By

B-Medona.

(Dr. B. Medona)

HOD'S Signature