Programme: B. Sc. Chemistry

SEMESTER III			
Core Skill Based	**Agricultural Chemistry and Water Management**		
Code :18UCHS31	**Hrs./Week:4**	**Hrs/ Sem : 60**	**Credits:4**

Course Outcome

CO No.	Upon completion of this course, students will be able to	PSO addressed	CL
CO - 1	understand the importance of soil its constituents, fertility and to promote agriculture.	1, 7	Un
CO - 2	know the preparation and importance of fertilizers in agriculture	1, 7	Re
CO - 3	realize the importance of pesticides and insecticides	1, 7	Ap
CO - 4	understand the water quality standards and water quality parameters.	2, 3, 7	Un
CO - 5	aware of the harmful effects of pollutants Produce vermi compost and gobar gas	2, 3, 8	An,Cr
CO - 6	understand the processes used for purification of municipal water	4	Un
CO - 7	treat waste water by using different methods	4, 7, 8	Cr
CO - 8	estimate the amount of carbonate, chloride, nitrate, phosphate, zinc and calcium present in soil.	4, 7	Ap

SEMESTER- III			
NME I	**Industrial Chemistry**		
Code :18UCHN31	**Hrs/Week:2**	**Hrs/ Sem: 30**	**Credits:2**

Course Outcome

CO No.	Upon completion of this course, students will be able to	PSO addressed	CL
CO - 1	understand the process of refining of petroleum and they can develop knowledge of different refining processes	2	Un
CO -2	aware of the importance as well as the impacts of residual chemicals related with petroleum industry	2, 5	Ap
CO - 3	know the adverse effects of corrosion and study the means to prevent it	1	Re
CO - 4	understand the difference and usage of paints, varnishes and lacquers	2	Un
CO - 5	know the fundamental knowledge about rubbers and fibres.	2, 5	Re
CO - 6	understand and apply the various processing and manufacturing techniques of rayons, nylons and polyesters	2, 5	Un
CO - 7	know the chemistry of oils, fats and waxes and their manufacturing process	1, 2	Re
CO - 8	know the government regulations required for the usage of food additives in food products.	5	Re

SEMESTER- IV			
NME II	**Everyday Chemistry**		
Code :18UCHN41	**Hrs./Week: 2**	**Hrs/ Sem: 30**	**Credits: 2**

Course Outcome

CO No.	Upon completion of this course, students will be able to	PSO addressed	CL
CO - 1	differentiate between hand and soft water in terms of origin and content	2	Ap
CO - 2	analyse samples of water to assess their suitability for drinking	5	An
CO - 3	know the importance of some common drugs	5	Un
CO - 4	understand the chemistry behind mouth washes, antacids, analgesics, antipyretics, sedatives and hypnotics	2, 5	Un
CO - 5	correlate the importance of colloids in day to day life	1	Cr
CO - 6	know the preparation of some special milks		Re
CO - 7	understand the basic principles behind the preparation of some useful compounds	1	Un
CO - 8	knowledge on the preparation of commercial products such as candle, Tooth paste, Blackboard chalk, Moth balls, Cleaning powder, Face powder, Lipstick and Eyetex	2, 7	Cr

SEMESTER- III			
Skill Based Elective	**Agricultural Chemistry**		
Course Code : 21UCHS31	**Hrs/Week : 2**	**Hrs/ Sem : 30**	**Credits : 2**

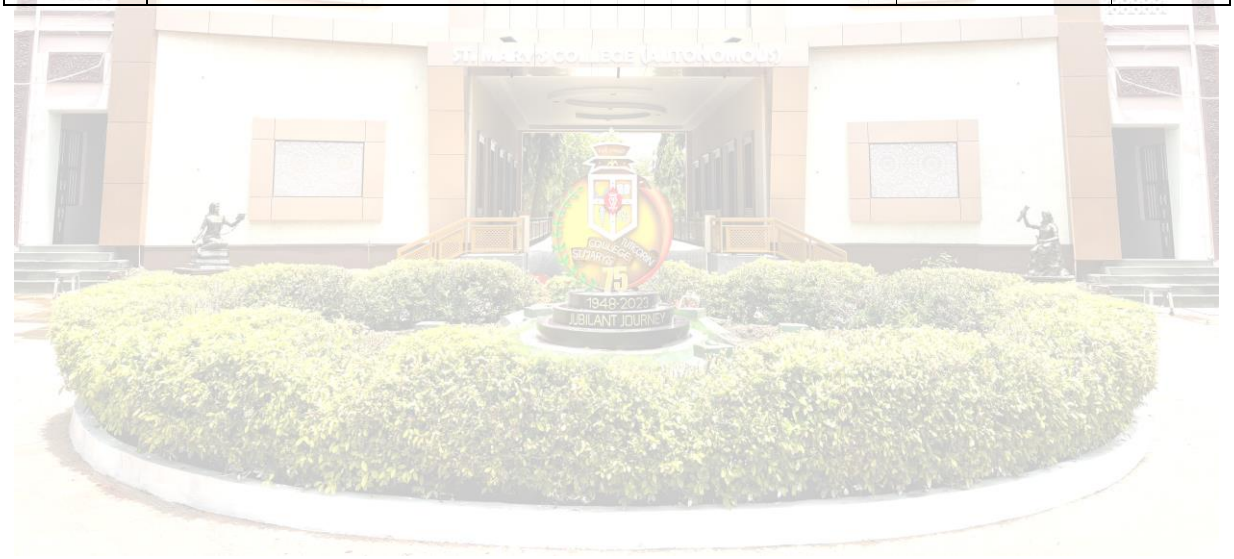
Course Outcome:

CO No.	Upon completion of this course, students should be able to	PSO addressed	CL
CO- 1	identify the importance of soilconstituents and have an overview of the macro and micronutrients to promote agriculture.	1, 7	Re
CO- 2	compare the preparation and importance of chemical fertilizers and biofertilisersin agriculture	1, 7	Un
CO-3	aware of eco friendly vermi compost and gobar gas	2, 3	An,Cr
CO- 4	realize the importance of pesticides and rationalise their environmental hazards	1, 7	Ap
CO-5	understand the water quality standards and water quality parameters and analyse the case studies of heavy metal pollution like Hg, As, and Cd.	1,2,7	Un
CO-6	understand the processes used for purification of municipal water and treat waste water by using different methods	4,7	Un,Cr

SEMESTER III			
Part III Skill -based Elective Dairy Chemistry			
Course Code :21UCHS32	**Hrs/Week : 2**	**Hrs/ Sem : 30**	**Credits : 2**

Course Outcome:

CO. No.	Upon completion of this course, students should be able to	PSO addressed	CL
CO - 1	know the quality parameters of milk	1,5	Re
CO - 2	categorize the types of different types of milk processing techniques	1, 3	An
CO - 3	understand the theory behind non fermented milks	1, 2	Un
CO - 4	determine the different constituents in milk	2, 4	Ap
CO - 5	estimate fat and solids in milk	5	Ap
CO - 6	assess the properties of different milk products	1 , 7	Ev



SEMESTER-III			
NME I	**Everyday Chemistry**		
Course Code : 21UCHN31	**Hrs/Week:2**	**Hrs/ Sem: 30**	**Credits:2**

Course Outcome:

CO No.	Upon completion of this course, students will be able to	PSO addressed	CL
CO - 1	interpret the biological importance of water and relate the ill effects of water borne diseases and prevention	1, 5	Un, Ap
CO –2	describe the ignition temperature and flash point of fuels.	1,4,5	Re
CO – 3	identify the characteristics of solid liquid and gaseous fuels.	1	Re
CO – 4	recall the fundamental knowledge about constituents of paints and varnishes and their functions and predict fluorescent paints (traffic signal) and fire retardant paints.	2, 5	Re, Ap
CO – 5	explain the recovery of alcohol from molasses and sequence the chemistry of manufacture of paper.	2, 4, 5	Un, Re
CO – 6	describe the preparation and uses of Candle, Tooth Powder, Liquid blue, Black board chalk, Moth balls soap, shampoo, lipstick	1, 4,5	Re

SEMESTER- IV			
NME II	**Industrial Chemistry**		
Course Code :21UCHN41	**Hrs/Week:2**	**Hrs/ Sem: 30**	**Credits:2**

Course Outcome:

CO.No.	Upon completion of this course, students will be able to	PSO addressed	CL
CO-1	recall the composition of petroleum and refining of petroleum and explain the octane number and cetane number.	1	Re, UnUn
CO-2	outline the manufacture of rubber and Gutta-percha.recall the importance of reclaimed rubber and foam rubber.	1,5	UnAn
CO-3	analyze fats and oils.	5, 8	An
CO-4	interpret the knowledge about saponification value and RM value.	5	Un
CO-5	explain the characteristics of food colorants and categorize the artificial and natural food colorants.	6, 5, 8	Un,An
CO-6	summarize the knowledge of PFA, FPO, FDA, drug license and relate essential commodities act, consumer protection act, AGMARK.	2,5	Un, Ap

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