

ಸಂತ ಅಲೋಶಿಯಸ್ ಕಾಲೇಜು
(ಸ್ವಾಯತ್ತ)
ಮಂಗಳೂರು- 575 003, ಕರ್ನಾಟಕ
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**ST ALOYSIUS COLLEGE
(AUTONOMOUS)**
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Re-accredited by NAAC with 'A' Grade with CGPA 3.62/4
Ranked 95 in College Category - 2021 under NIRF, Ministry of Education, Government of India
Recognised as Centre for Research Capacity Building under UGC-STRIDE Scheme
Recognized under DBT - BUILDER Scheme, Government of India
College with "STAR STATUS" Conferred by DBT, Government of India
Recognised by UGC as "College with Potential for Excellence"

Date: 12-08-2021

NOTIFICATION

Sub: Syllabus of **M.Sc. Chemistry** under Choice Based Credit System.

Ref: 1. Decision of the Academic Council meeting held on 19-06-2021 vide

Agenda No: 20 (1) (2021-22)

2. Office Notification dated 12-08-2021

Pursuant to the above, the Syllabus of **M.Sc. Chemistry** under Choice Based Credit System which was approved by the Academic Council at its meeting held on 19-06-2021 is hereby notified for implementation with effect from the academic year **2021-22**.

PRINCIPAL

REGISTRAR

To:

1. The Chairman/Dean/HOD.
2. The Registrar Office
3. Library
4. PG Office

Structure, Credits and Scheme of Examination of the Postgraduate Courses under Choice Based Credit System

M.Sc. Chemistry 2021

I Semester = 3 Hard core and 1+5 soft core paper

Code	Papers	Hours/ Week	Durati on of Exam	Marks		Total	Credits
				IA	End Sem		
PH 581.1	Inorganic Chemistry	4	3	30	70	100	4
PH 582.1	Organic Chemistry	4	3	30	70	100	4
PH 583.1	Physical Chemistry	4	3	30	70	100	4
PS 584.1	Principles of Analytical Chemistry & Separation Techniques or	3	3	30	70	100	3
PS 585.1	Bioorganic Chemistry						
PS 586.1	Research Methodology	3	3	30	70	100	3
PS 587.1P	Inorganic Chemistry - Practicals – I	4	4	15	35	50	2
PS 588.1P	Organic Chemistry Practical – I	4	4	15	35	50	2
PS 589.1P	Physical Chemistry Practical – I	4	4	15	35	50	2
						650	24

II Semester = 3 Hard core and 1+4 soft core paper and open elective 1 paper

PH 581.2	Advanced Inorganic Chemistry	4	3	30	70	100	4
PH 582.2	Advanced Organic Chemistry	4	3	30	70	100	4
PH 583.2	Advanced Physical Chemistry	4	3	30	70	100	4
PS 584.2	Molecular Symmetry and Molecular Spectroscopy Or	3	3	30	70	100	3
PS 585.2	Chemistry of Biomolecules						
PS 586.2P	Inorganic Chemistry Practical – II	4	4	15	35	50	2
PS 587.2P	Organic Chemistry Practical – II	4	4	15	35	50	2
PS 588.2P	Physical Chemistry Practical – II	4	4	15	35	50	2
PO 589.2	Spectral Methods Of Analysis	3	3	30	70	100	3
						650	24

M.Sc. Chemistry

III Semester = 2 Hard core and 1+4 soft core paper open elective 1 paper

Code	Papers	Hours/ Week	Duration of Exam	Marks		Total	Credits
				IA	End Semester		
PH 581.3	Organometallic, Bioinorganic and Coordination Chemistry	4	3	30	70	100	4
PH 582.3	Electrochemistry and Thermo- Analytical Methods	4	3	30	70	100	4
PS 583.3	Molecular Spectroscopy or	3	3	30	70	100	3
PS 584.3	Medicinal Chemistry						
PS 585.3P	Computers for Chemists - Practicals	4	4	15	35	50	2
PS 586.3P	Inorganic Chemistry Practicals- III	4	4	15	35	50	2
PS 587.3P	Organic Chemistry Practicals- III	4	4	15	35	50	2
PS 588.3P	Physical Chemistry Practicals- III	4	4	15	35	50	2
PO 589.3	Bio-Inorganic Chemistry, Green Chemistry And Environmental Chemistry	3	3	30	70	100	3
						600	22

IV Semester = 2 Hard core and 1+4 soft core paper open elective 1 paper

PH 581.4	Organic Synthetic Methods	4	3	30	70	100	4
PH 582.4	Radiation and Photochemistry	4	3	30	70	100	4
PH 583.4	Chemistry of Polymers and Natural Products	4	3	30	70	100	4
PS 584.4P	Organic Chemistry Practicals - IV	4	4	15	35	50	2
PS 585.4P	Inorganic Chemistry Practicals - IV	4	4	15	35	50	2
PH 586.4	Project Work	6	6	30	70	100	2
PS 587.4	Solid state and Nano Chemistry Or	3	3	30	70	100	3
	OR						
PS 588.4	Optical Methods of Analysis						
	Total					600	22
	Grand Total						92

NOTE: The First, Second and Third Semesters of the course involve theory and practical, while the IV Semester involves theory, practical and project work. The project work shall be carried out in the fourth semester for 75 Hours. After the Second Semester of the course, the project work could be carried out either in the institution or in an Approved Industry or in both. This should be under the supervision of a teacher and the project report should be submitted. Experts from the industries may also be involved in the project work as co-guides and in the evaluation of project reports.

MAIN FEATURES OF THE COURSE:

M.Sc Analytical chemistry has the following features.

❖ The entire course will have a total of 2500 marks with 92 credits distributed in 4 semesters. Out of 92 credits, hard core has 50 credits (54.34%), Soft core has 36 credits (39.12%), Open elective has 6 credits (6.54%)

First semester	650	Marks	24 credits
Second semester	650	Marks	24 credits
Third semester	600	Marks	22 credits
Fourth semester	<u>600</u>	Marks	<u>22 credits</u>
	2500	Marks	92 credits