



Subject: Practicals-MSCIN13518

Type of course: Major

Prerequisite: Students should have a basic knowledge and understanding of Physical chemistry is recommended.

Rationale: Physical Chemistry lies in its fundamental scientific importance and wide-ranging practical applications across various fields, from medicine and energy to environmental protection and industry.

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks					Total Marks
CI	T	P		Theory Marks		Practical Marks		CA	
			ESE	MSE	V	P	ALA		
0	0	12	6	00	00	40	80	30	150

Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; ESE - End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA - Continuous Assessment; ALA- Active Learning Activities.

List of Practicals:

Unit No.	Course content	Hrs	% Weight age
1	Preparation of Dyes: Preparation of Azo dyes, Dyes obtained by other methods- Fluorescein. Phenolphthalein Malachite green, Crystal violet	16	50

GYANMANJARI INNOVATIVE UNIVERSITY		GYANMANJARI SCIENCE COLLEGE	
2	Physico-chemical experiments (Minimum – 8)	34	50
3	TOTAL	50	100

Continuous Assessment:

Sr. No	Active Learning Activities	Marks
1.	JOURNAL: Unit wise practical will be given by faculty and students will prepare a journal for the practical.	30
Total		30

Suggested Specification table with Marks (Theory):NA

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	NA	NA	NA	NA	NA	NA

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.



Instructional Method:

The course delivery method will depend upon the requirement of content and the needs of students. The teacher, in addition to conventional teaching methods by black board, may also use any tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory

The internal evaluation will be done on the basis of Active Learning Assignment

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in the laboratory.

Reference Books:

[1] Practical Chemistry by V.K. Ahluwalia.

[2] Practical Organic Chemistry 1st edition by Hitesh G. Raval, Sunil L. Baldania and Dimal A.

Shah - Nirav Prakashan.

[3] Practical Organic Chemistry by Dr. M. Satish Kumar.

