

	Practical Plan	
--	-----------------------	--

Name of the college: Government college of Arts Science and commerce Sanquelim Goa.		
Name of Faculty: Ms. Dipika Gosavi	Subject: Chemistry	
Paper code: CHC-243	Program: S.Y.B.Sc	Division: A
Academic year: 2025- 2026	Semester: I	Total Practicals/Labs: 10 (30 hours)
Credits: 1		
Course Objectives:- To develop fundamental laboratory skills for determining solution properties, standardizing solutions, purifying compounds, and performing qualitative analysis with safe and accurate practices.		
Expected Course Outcome: 1. To apply theoretical concepts to experiments. 2. To understand the role of various organic reactions in drug synthesis. 3. To learn about methods of drug analysis.		
Student Learning Outcome: Students will be able to 1. Explain various organic reactions for synthesis of drugs. 2. Write the retrosynthetic approach for synthesis of drugs. 3. Identify types of assay. 4. Compare chemical and bioassay. 5. Identify functional groups in approved drugs. 6. Perform synthesis of drugs and drug like entities. 7. Determine the purity of drugs titrimetrically as well as by instrumental method.		

8. Perform TLC analysis of drugs.				
Month	Practicals/Labs Scheduled Date	No. of Practical's/Labs planned	List of Experiments	Reference books
June	23/06/2025-28/06/2025		Practicals not started	
June/July	30/06/2025-05/07/2025	1	Recrystallisation, water solubility and identification of various functional groups in drugs and drug like entities. (Any 6) Benzoic acid (COOH), Aspirin (COOH, OAc)	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
July	07/07/2025-12/07/2025	1	Recrystallisation, water solubility and identification of various functional groups in drugs and drug like entities Paracetamol (-Phenolic-OH, NHCOCH ₃), Salicylic acid,	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
July	14/07/2025-19/07/2025	1	Recrystallisation, water solubility and identification of various functional groups in drugs and drug like entities Camphor (Ketone), Methyl salicylate (Ester)	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
July	21/07/2025-26/07/2025	1	Synthesis of FDA-approved drugs: (Any 3) a) Aspirin from salicylic acid.	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
July/August	28/07/2025-02/08/2025	1	b) Dilantin from Urea	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
August	04/08/2025-09/08/2025	1	c) Benzocaine from p-aminobenzoic acid	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
August	11/08/2025-16/08/2025	1	d) Paracetamol from 4-aminoacetanilide/p-aminophenol	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
August	18/08/2025-23/08/2025	1	Synthesis of drug-like entities a) 7-hydroxy-4-methylCoumarin by Pechmann Condensation	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
August	25/08/2025-30/08/2025	1	GANESH CHATURTHI HOLIDAY	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
September	01/09/2025-06/09/2025	1	b) 2,3-diphenylquinoxaline from benzil	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.

September	08/09/2025-13/09/2025	1	d) Benzimidazole from formic acid by oxidative cyclization	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
September	15/09/2025-20/09/2025	1	Titrimetric assay of the following drugs (Any 4) a) Aspirin b) Ibuprofen	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
September	22/09/2025-27/09/2025	1	e) Paracetamol f) Ascorbic acid	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
September/October	29/09/2025-04/10/2025	1	TLC of following drugs/drug like entities and determination of R _f value (Any 6): Paracetamol, aspirin, dilantin, benzocaine, sulphanilamide, 7 hydroxy-4-methylCoumarin, 2,3-diphenylquinoxaline	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
October	06/10/2025-11/10/2025	1	Instrumental assay of the following drugs/tablet. (Any 2) 06 UV-spectrophotometric method for purity analysis of paracetamol/Isoniazid/Metformin/Albendazole	M. Jahangir, Pharmaceutical Laboratory Procedures, 1st Ed., New Delhi Cengage Learning India Pvt. Ltd. 2010.
October	13/10/2025-18/10/2025	1	Exam	

Assessment Rubrics

Component	Max Marks
ISA 1	-
ISA 2	-
Practical	25
Project	-
Semester End Exam	-