

Semester Plan

Name of the college: Government College of Arts, Science and Commerce, Sanquelim- Goa

Name of Faculty: Dr. Sagar Narayan Patil

Subject: Chemistry

Paper code: CHP-101, Project

Program: TYBSc

Academic year: 2024 - 2025

Semester: V

Total (01 group)

Project Objectives:

- To Synthesize & study organic compounds and their activities. • To practise and document the literature review
- To monitor reaction mixture using TLC; • To Analyse reaction mixture using spectroscopy
- Skills improvement in handling and safe usage of chemicals • Solvent extraction to isolate chemical compounds • purification of organic compounds using column chromatography

Expected Project Outcome: will be able to ,

- Synthesize & study organic compounds and their activities. ; practise and document the literature review • monitor reaction mixture using TLC; • Analyse reaction mixture using spectroscopy
- Skilfully handle chemicals • perform Solvent extraction to isolate chemical compounds • purify organic compounds using column chromatography • purify organic compounds using

Student Learning Outcome: students will be able to,

- •Synthesize & study organic compounds and their activities. • practise and document the literature review; monitor reaction mixture using TLC; • Analyse reaction mixture using spectroscopy
- Skilfully handle chemicals • perform Solvent extraction to isolate chemical compounds • purify organic compounds using column chromatography; analyse analytical &/or Spectral data.

| Month | Lecture From | Lecture To | No. of lectures allotted | Topic, Subtopic to be covered | Exercise/ Assignment | ICT Tools | Reference books |
|-------|--------------|------------|--------------------------|---------------------------------|------------------------|--------------------|--|
| July | 01/07/2023 | 31/07/2023 | 4 | Optimization, completing | Articles, manuscripts, | Word file, drawing | Literature Review, journal articles, scifinder |

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| | | | | experimental table work; Compilation of Literature review Schemes & calculations of the reactions planned <u>Project I & Project II</u> | Purification, Analysis of chemical compounds , | schemes | |
| August | 02/08/2024 | 30/08/2024 | 5 | Compilation of Reaction set up/ experimental part,, discussion <u>Project I & Project II</u> Purification, Analysis of chemical compounds | To learn Compilation of Reaction set up/ experimental part,, discussion | Word file, drawing schemes | Literature Review, journal articles, scifinder |
| September | 06/09/2024 | 27/09/2024 | 4 | Compilation of spectral data of Optimization & Reaction set up drawing schemes, tables etc. Purification, Analysis of chemical compounds. | To optimize & learn Compilation of spectral data | Word file, drawing schemes | Literature Review, journal articles, scifinder |
| October | 04/10/2024 | 18/10/2024 | | Compilation of spectral data of Optimization & Reaction set up drawing schemes, tables etc. Purification, Analysis of chemical compounds. & Planning for next semester w.r.t. handling of negative results, Reaction set up Compilation of <u>final draft of project work</u> <u>Project I & Project II</u> | drawing schemes, tables ; Structures and schemes <u>final draft of project work</u> VIVA | Word file, drawing schemes | Literature Review, journal articles, scifinder |

Dr. Sagar Narayan Patil

CHP 101; TYBSc Projects (01 group)