



# CSIR-NCL Integrative Skill Initiative

## Skill Development Course in Synthetic Organic Chemistry



**Course Title:** Synthetic Organic Chemistry

**About the Course:** Organic synthesis is the toolbox for building molecules impacting every industry, such as pharmaceutical, food, agriculture, polymers and materials, dye, perfumes and cosmetics etc. Synthesizing known molecules via sustainable chemistry as well as new molecules with improved properties greatly impacting the modern society and economy. Practical knowledge on organic synthesis and handling of state of the art facilities is the pre-requirement to contribute to this field. This course provides a hands-on experience of how the planning, designing, execution, and analysis are done in sync to achieve synthetic goals. After completing the course, the candidate will be able to plan and execute the most commonly practiced and advanced organic transformations in lab scale under a safe environment independently.

### Course Content:

Students will be working in some of the established groups for hands-on training for various organic transformation and execution of multistep synthesis that comprises, protection/deprotection; oxidation/ reduction; coupling/cyclization reactions. The training will be carried out following proper planning and safety requirement, setting up the reactions under direct guidance, reaction monitoring, product isolation and purification, and analysis of product(s) formed. The experiments and its analysis will be documented for reference.

As a prerequisite, in the first two weeks, the students will undergo hands-on training for laboratory safety, safe practices with laboratory chemicals, literature data mining, analytical data processing and proper record keeping.

**Course Instructors:** Scientist's of Organic Chemistry Division, CSIR NCL

**Course Code:** SDP\_NCL34\_2022

Commencement Date: 16/01/2023

End Date : 15/04/2023

Registration Deadline Date : 10/12/2022

Selection Intimation Date : 15/12/2022

Duration : 12 weeks

Seat Available: 20

Eligibility: M. Sc. (Chemistry Completed)

### How to Apply

Apply Online at the following website

<http://nclsdp.ncl.res.in/Default.aspx>

### Mailing Address

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