



## CSIR-INDIAN INSTITUTE OF PETROLEUM

(Council of Scientific & Industrial Research)

P.O. IIP Mohkampur, Haridwar Road,

Dehradun-248 005, Uttarakhand

Website: [www.iip.res.in](http://www.iip.res.in)



### Basic Skill Development Training on 'Analytical Chemistry, Tools and Techniques'

#### Introduction

With experienced and qualified staff and comprehensive state-of-the-art R&D facilities the institute maintains its leading position in conducting training programs for the personnel from refining, petrochemical, automotive, power and related user industry. More than 8000 personnel from India and abroad have been trained on different requirements.

As per the initiatives taken by the institute under 'CSIR-IIP Integrated Skill Development Training Programs' applications are invited from eligible **Uttarakhand state residents only** for training program on 'Analytical Chemistry, Tools and Techniques', sponsored by **Uttarakhand State Council for Science & Technology (UCOST)**.

Our Analytical Sciences Division is equipped with range of analytical instruments beside manpower having wide-ranging working experience and extensive knowledge base. The participants will acquire a broad working knowledge of various analytical testing/evaluation techniques.

#### Objectives & Scope

Training is aimed at providing in depth knowledge and hands on experience on various analytical techniques to those new to the R&D institute/industry or wish to develop their career further in the relevant QA/ QC area with more strengthened analytical approach.

#### Contents

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| <ul style="list-style-type: none"><li>• Basics of analytical chemistry</li><li>• Qualitative and quantitative analysis : Pre-requisites</li><li>• Various sample preparations</li><li>• Analytical approaches<ul style="list-style-type: none"><li>▪ Gravimetry</li><li>▪ Volumetry</li></ul></li></ul> | <ul style="list-style-type: none"><li>• Chromatography/Mass Spectroscopy ( GC, HPLC, GC-MS, LC-MS)</li><li>• Spectroscopy (UV-Vis, FTIR, NMR)</li><li>• Diffraction and morphology, XRD/XRF</li><li>• Analysis using ICP-AES/AAS, TGA, DTG</li><li>• Figures of merit, Errors in analysis, validation.</li></ul> |
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#### After successful completion

With exposure to advanced analytical instrumental facilities backed by theoretical clarity, a person will be able to develop precise evaluation approach for research and development activities/quality compliances besides running routine analytical tests depending upon individual's ability and dedication in learning the skill.

#### Pre-requisites

No pre requisites beside educational qualification being M.Sc. (Chemistry)/M.Pharm  
**20 - 35** years of age.  
(Age/qualification relaxation as per Govt. of India Rules/discretion of Director, CSIR-IIP).

#### Who Should join

**Uttarakhand resident** having desire to excel in the area of R&D/ Quality Control OR wants to acquire broad knowledge of Analytical Science through exposure to instrumental testing and evaluation for competitive examinations.

### Salient features of the program

- Theory: Practical :: 30 : 70
- Interactive sessions for in-depth knowledge sharing.
- Evaluation of trainees will consist of both Theory & Practical component.
- Certificates will be awarded on successful completion of the training.

### How to Apply & Selection

- Candidates have to apply as per the application format in the given link below along with one set of self-attested documents.
- Selection of the candidates will be based on merit & interview (if required) to meet suitability for the course.
- All documents in original to be shown at the time of interview / enrolment.

Form download (PDF) <http://www.iip.res.in/skill/form18.pdf>

Form download (MS Word) <http://www.iip.res.in/skill/form18.doc>

Please send hard copy of application and documents at following address:

**Sh C D Sharma**  
Co-ordinator, Skill Development Training Program  
CSIR-Indian Institute of Petroleum  
Mohkampur, Haridwar Road  
Dehradun 248005

You may also correspond, send soft copy of application at following e-mail:

e-mail: [cdsharma@iip.res.in](mailto:cdsharma@iip.res.in)

e-mail: [aniljain@iip.res.in](mailto:aniljain@iip.res.in)

Contact phone nos.

Sh C D Sharma, Tel No 0135-2525778, M- 9412028789,

Dr Anil K Jain, Tel 0135- 2525751(O), M-9897119578

Training venue :

**CSIR-Indian Institute Of Petroleum**

P.O.: IIP Mohkampur, Haridwar Road, Dehradun-248 005, Uttarakhand (India).

No TA/DA and accommodation for interview will be provided to the candidates.

### Important dates

Last date for submission of Application	:	18/07/18
Declaration of participant	:	23/07/18
Enrolment dates	:	27/07/18
Commencement of course	:	30/07/18

CSIR-Indian Institute of Petroleum, Dehradun