



# ADITYA COLLEGE OF PHARMACY

Aditya nagar, Surampalem,  
Andhra Pradesh 533437

**A CERTIFICATE course on**



**“HANDS ON TRAINING PROGRAMME IN EXTRACTION TECHNIQUES”**

***Eligibility: II B.Pharm***

Students who are interested to join the Certificate course should contact the respective coordinator



**Coordinator: Md. Bhakatwar**  
Asst. Professor,  
Aditya College of Pharmacy



**Resource Person: O. Satya**  
Asst. Professor,  
Aditya College of Pharmacy



**Convener: Dr. K. Ravishankar**  
Principal,  
Aditya College of Pharmacy



**Patron: Dr. N. Satish Reddy**  
Vice-Chairman,  
Aditya Educational Institutions



**Timings:**  
4th Nov 2017 to  
2nd Dec 2017  
(Every Saturday)

**PRINCIPAL**  
Aditya College of Pharmacy  
SURAMPALEM-533 437

All the students enrolled in this course will be provided with a certificate





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(Affiliated to JNTUK, Approved by AICTE)



(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: [www.acop.edu.in](http://www.acop.edu.in), Email: [office@acop.edu.in](mailto:office@acop.edu.in)

## COURSE SYLLABUS

DUARATION: 30Hrs

**COURSE NAME:** Hands on Training on Extraction Techniques

### **COURSE OBJECTIVES:**

The course objective is to provide both theoretical and hands on training on the techniques and development of standardized herbal extract. At the end of the course trainee will be exposed to

- (i) Techniques applied to determining herbal extraction methods to develop a standardized herbal extract from lab to industrial scale.
- (ii) Techniques in standardized lab scale method in developing standardized herbal extracts to industrial scale.
- (iii) Understanding quality measures (QC) involved in herbal extraction and developing standardized herbal extract with case studies focusing on Indian indigenous herbs lists in monograph of herbs in India.

**DAY 1: 04-11-2017, 6Hrs**

### **MODULE- I**

Raw material Preparation: collection of Indian herbs, solvent collection and purification

**DAY 2: 11-11-2017, 6Hrs**

### **MODULE- II**

Extraction Process: Maceration, soxhlet extraction, successive solvent extraction

**DAY 3: 18-11-2017, 6Hrs**

### **MODULE- III**

Downstream processing: explaining the process of extraction and bulk extraction preparation

**DAY 4: 25-11-2017, 6Hrs**

### **MODULE- IV**

Product formulations (Cosmetics, Flavorings agents, Herbal Products)



*Pravin Chandra*  
PRINCIPAL  
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**DAY 5: 02-12-2017, 6Hrs**

## MODULE- V

Product Quality Management and registration by using analytical methods

### REFERENCE:

1. Chemat, F., & Strube, J. (Eds.). (2015). *Green extraction of natural products: theory and practice*. John Wiley & Sons.
2. Sarker, S. D., Latif, Z., & Gray, A. I. (2006). Natural product isolation. In *Natural products isolation* (pp. 1-25). Humana press.
3. Rostagno, M. A., & Prado, J. M. (Eds.). (2013). *Natural product extraction: principles and applications* (No. 21). Royal Society of Chemistry.



*xxavi chudra*  
PRINCIPAL

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# ADITYA

## COLLEGE OF PHARMACY

Approved by AICTE & PCI - NEW DELHI, Affiliated to JNTUK KAKINADA  
(Formerly known as Sri Sai Aditya Institute of Pharmaceutical Sciences & Research)

Ph: 99498 76664

Email: office@acop.edu.in

Website: www.acop.edu.in

### CERTIFICATE COURSE SUMMARY 2017-18

**COURSE CODE AND NAME** : CTET and Hands on training programme in extraction techniques  
**COURSE DURATION** : 30Hrs  
**BRANCH AND YEAR OFFERED:** II B.Pharmacy  
**COURSE INSTRUCTORS** : O.Satya, Assistant Professor

#### COURSE OUTCOME

Student would be able to learn the both theoretical and hands on training on the techniques and Understanding quality measures (QC) involved in herbal extraction and developing standardized herbal extract.

**COURSE TYPE** : Self framed course

#### ASSESSMENT MODE

**ATTENDANCE** : 30 Hours  
**NO.OF PARTICIPANTS** : 100  
**SCHEME OF EXAM** : MCQ Offline  
**DATE OF EXAM** : 04-12-2017

  
Course coordinator



  
Principal  
PRINCIPAL  
Aditya College of Pharmacy  
SURAMPALAM-533 437







# CERTIFICATE OF COMPLETION

This is to certify that

**Mr./Ms.**

bearing roll number \_\_\_\_\_  
has successfully completed the Certificate  
course entitled "**Hands on training program  
in extraction techniques**" held in  
Aditya College of Pharmacy,  
Surampalem from 04th November to  
2nd December, 2017.

This activity was awarded by:

N. Sathya Lakshmi

*Chairman*

N. Sathya Lakshmi

*Vice-Chairman*

N. Sathya Lakshmi

*Principal &*

*Director*



*Principal*  
Aditya College of Pharmacy  
SURAMPALAM-533 437

Sample