

Certificate course on  
**“VARIUOS EXTRATION METHODS & TECHNIQUES”**  
Department – Pharmacognosy (2017-18)  
Duration: 30 hrs

**Scope:** To make students aware about various extraction methods & techniques used for the extraction of medicinal plants.

**Objective:**

Upon completion of the certificate course students shall be able to deal with

- ✓ Students will come to know no. various extraction methods.
- ✓ Students will understand about how to use various techniques.
- ✓ Students will be able to know the traditional as well as modern methods of extraction and their application.



**Rajarshi Shahu**  
**College of Pharmacy**

Journey Towards Academic Excellence

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**COARSE OBJECTIVES**

**After completion of this certificate course my students should be able to**

<b>Co's</b>	<b>Description/Statement</b>
<b>CO1</b>	My students will able to understand the various extraction methods.
<b>CO2</b>	My students will able to write the traditional as well as modern methods of extraction their application.
<b>CO3</b>	Able to know the extraction process.
<b>CO4</b>	How to approach of the use of various techniques of extraction fro particular crude drug extraction.

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## Course content

<b>Syllabus of the certificate course on “VARIUOS EXTRATION METHODS &amp; TECHNIQUES”</b>	
<b>Sr. no.</b>	<b>Topics</b>
1	Concept of Extraction
2	Methods of extraction of extraction
3	Difference between traditional methods & modern methods of extraction
4	Traditional methods of extraction
5	Maceration
6	Decoction
7	Infusion
8	Soxhlet extraction
9	Percolation
10	Supercritical fluid extraction (SFE) ...
11	Ultrasound assisted extraction (UAE) ...
12	Microwave assisted extraction (MAE)
13	Reflux extraction.
14	Accelerated-solvent extraction (ASE)
15	Various Techniques for extraction and their application.

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**(01/02/18 to 24/02/2018)**

Syllabus of the certificate course on “VARIUOS EXTRATION METHODS & TECHNIQUES”				
Sr. no.	Topics	Date	Time	Conducted by
1	Concept of Extraction	01/02/2018	9:30 am to 10:30am	Dr. S. M. Kewatkar
2	Methods of extraction of extraction	02/02/2018	9:30 am to 10:30am	Dr. S. M. Kewatkar
3	Difference between traditional methods & modern methods of extraction	03/02/2018 to 04/02/2018	9:30am to 11:30am	Dr. S. M. Kewatkar
4	Traditional methods of extraction	05/02/2018 to 06/02/2018	9:30 am to 10:30am	Dr. S. M. Kewatkar
5	Maceration	07/02/2018	9:30 am to 10:30am	Dr. S. M. Kewatkar
6	Decoction	08/02/2018	9:30 am to 10:30am	Dr. S. M. Kewatkar
7	Infusion	09/02/2018	9:30 am to 10:30am	Dr. S. M. Kewatkar
8	Soxhlet extraction	10/02/2018 to 11/02/2018	9:30 am to 10:30am and 9:30am to	Dr. S. M. Kewatkar

			11:30am	
9	Percolation	12/02/2018 13/02/2018	9:30 am to 10:30am	Dr. S. M. Kewatkar
10	Supercritical fluid extraction (SFE) ...	12/02/2018 13/02/2018	9:30 am to 10:30am	Mr. M. D. Chakolkar
11	Ultrasound assisted extraction (UAE) ...	14/02/2018 15/02/2018	9:30 am to 10:30am	Mr. M. D. Chakolkar
12	Microwave assisted extraction (MAE)	16/02/2018 17/02/2018	9:30 am to 10:30am and 9:30am to 11:30am	Mr. M. D. Chakolkar
13	Reflux extraction.	18/02/2018 19/02/2018	9:30am to 11:30am and 9:30 am to 10:30am	Mr. M. D. Chakolkar
14	Accelerated-solvent extraction (ASE)	20/02/2018 21/02/2018	9:30 am to 10:30am	Mr. M. D. Chakolkar
15	Various Techniques for extraction and their application.	22/02/2018 23/02/2018 24/02/2018	9:30 am to 10:30am	Mr. M. D. Chakolkar



Principal  
Principal  
Rajarshi Shahu College of Pharmacy,  
Malvihi, Buldana.