



Course Module

Introduction to methods of extractions And Herbal Drugs

Units	Syllabus	Hours
1	<p>Introduction to extraction of medicinal plants.</p> <ul style="list-style-type: none"> • Overview of various extraction techniques and their significance in pharmacy. • Historical development and milestones in the field of extraction technology. • Current trends and future prospects of extraction methods. • Steps involved in the preparation of various extracts. 	6 Hours
2	<p>Selection of an appropriate extraction method</p> <ul style="list-style-type: none"> • Introduction to maceration, decoction, and hot continuous extraction techniques. • Introduction to counter current extraction, aqueous alcoholic extraction by fermentation, microwave assisted extraction, pressurized extraction techniques. • Selecting an appropriate method for extracting the essential oils. 	6 Hours
3	<p>Selecting the solvent selection and steps involved in extraction of medicinal plants.</p> <ul style="list-style-type: none"> • Types of solvents, solubility and properties of various solvents 	4 hours

	<ul style="list-style-type: none"> . details of steps involved in extraction of plants e.g. size reduction, extraction, filtration, concentration, drying. 	
4	<p>Extraction techniques for aromatic plants</p> <ul style="list-style-type: none"> Hydro distillation techniques (water distillation, steam distillation, steam and water distillation.) Solid phase micro extraction, microdistillation, molecular distillation. 	3 hours
5	<p>Advanced extraction techniques</p> <ul style="list-style-type: none"> Introduction, Principle, Working, Advantages, Disadvantages and uses of Enzyme extraction, molecular distillation, supercritical fluid extraction, ultrasound extraction. 	6 hours
6	<p>Applications of extraction techniques</p> <ul style="list-style-type: none"> Super critical fluid extraction of pepper. Separation of essential oil by hydro distillation (clove oil) Preparation of water extract of amla fruit by microwave assisted extraction. 	5 hours

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Signature	




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