

Liverpool John Moores University

Title: PLANTS AS DRUGS AND MEDICINE
Status: Definitive
Code: **6502MCPHAR** (111537)
Version Start Date: 01-08-2011

Owning School/Faculty: Pharmacy & Biomolecular Sciences
Teaching School/Faculty: Pharmacy & Biomolecular Sciences

Team	Leader
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Academic Level: FHEQ6 **Credit Value:** 12.00 **Total Delivered Hours:** 35.00
Total Learning Hours: 120 **Private Study:** 85

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	27.000
Off Site	6.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Examination: essay type questions	70.0	2.00
Essay	AS2	Coursework: 1 essay of 2000 words	30.0	

Aims

To facilitate an appreciation of the part herbs have played in the development of modern medicine. To consider problems relating to the supply, production, quality control, toxicity and contamination of herbs, their biological activity in relation to active constituents, and their potential as sources of medicinal agents.

Learning Outcomes

After completing the module the student should be able to:

- 1 Explain the contribution made by the use of herbs to the development of modern herbal, homeopathic and allopathic practices of medicine and therapy.
- 2 Discuss problems associated with the production and preparation of herbs, and the role of herb gardens, herbaria and databases in the advancement of research into the use of herbs.
- 3 Evaluate data concerning the quality and safety of herbs, including issues of toxicity, herb-drug interactions and safe use.
- 4 Review the biological action of a range of herbs and crude drugs in common use, in relation to their proposed active constituents.
- 5 Discuss more recent research work relating to the exploitation of plants as medicinal agents.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

EXAM	1	2	3	4	5
Essay	3	4	5		

Outline Syllabus

The place of herbs in history as a major contributory element in orthodox, allopathic, medicinal practice.

The development of herbal medicine and modern phytotherapy in Europe.

Herbals and Physic Gardens.

Plant classification and plant hunters.

Cultivation, collection and preparation of herbs, adulteration and sophistication.

The role of modern herb gardens, herbaria and databases.

General uses of herbs: herbs in self-help, home remedies and over-the-counter remedies. Herbs of recent interest and in the treatment of cardiovascular, gastro-intestinal, inflammatory, respiratory and nervous disorders.

Herbalism, including Traditional Chinese, Indian and African practice. Principles, philosophy and training. Development of new drugs from plants. Homeopathy and Herbalism.

The medicinal plants industry: quality control and production of herbal products.

Medicinal plant biotechnology. Biological activity in relation to major active constituents (alkaloids, flavonoids, glycosides).

Toxicity problems with herbs: herb-drug interactions, pharmacovigilance.

Learning Activities

Professional visits and demonstrations (herb garden and herbarium). Written

presentation (assignment).

References

Course Material	Book
Author	Barnes, J., Anderson, L.A., Phillipson, J.D. and Newall, C.A.
Publishing Year	2002
Title	Herbal Medicines: a guide for healthcare professionals,
Subtitle	
Edition	2nd Edn,
Publisher	Pharmaceutical Press, London,
ISBN	0853694745.

Course Material	Book
Author	Bisset, N.G. and Czygan, F.C.
Publishing Year	1994
Title	Herbal Drugs and Phytopharmaceuticals: a handbook for practice on a scientific basis,
Subtitle	
Edition	CRC Press/Medpharm,
Publisher	
ISBN	0849371929.

Course Material	Book
Author	de Smet, P.A.G.M.
Publishing Year	1995
Title	Adverse Effects of Herbal Drugs,
Subtitle	
Edition	Vol 1-3,
Publisher	Springer Verlag, Berlin,
ISBN	03540531009.

Course Material	Book
Author	Dewick, P.M.
Publishing Year	2002
Title	Medicinal Natural Products: a biosynthetic approach,
Subtitle	
Edition	2nd Edn,
Publisher	John Wiley and Sons Ltd, Chichester,
ISBN	0471974781.

Course Material	Book
Author	Trease, G.E. and Evans, W.C.
Publishing Year	1996

Title	Pharmacognosy,
Subtitle	
Edition	14th Edn,
Publisher	W.B.Saunders Co Ltd,
ISBN	0702013579.

Course Material	Book
Author	Tyler, V.E.
Publishing Year	1994
Title	Herbs of Choice,
Subtitle	
Edition	
Publisher	Pharmaceutical Products Press, London,
ISBN	1560248955.

Course Material	Book
Author	Wijsekera, R.O.B.
Publishing Year	1992
Title	The Medicinal Plant Industry,
Subtitle	
Edition	
Publisher	CRC Press Inc, New York,
ISBN	0849366690.

Notes

This module provides an overview of the development of herbal medicine practices. It offers an introduction to the use of herbs, pointing to the sources of further information, biological activity in relation to active principles, issues of toxicity and herb-drug interaction, and production methods for medicinal plants. Recent research towards rational, safe use will be considered. Visits include a herb garden and herbarium.