



Course Code: 0521511

Session: 2023-2024; Semester-2

Dr. BALAKUMAR CHANDRASEKARAN

Professor-Faculty of Pharmacy

Philadelphia University-Jordan

Lecture Outlines

- **Definition of Phytotherapy**
- **Learning outcomes of course**
- **Syllabus**
- **Teaching methods**
- **Assessment methods**
- **References**
- **Websites**

PHYTOTHERAPY

- **Phytotherapy** is the study of the use of extracts of natural origin (plant-derived) as **health-promoting agents** or **medicines** in the treatment and prevention of disease.
- **Science-based medical practice**
- **Relies on numerous trials and pharmacological studies**
- Distinguished from other, similar traditional approaches like **Herbalism**

HERBALISM

- **Herbalism** relies on an empirical appreciation of medicinal herbs
- Often **linked to traditional knowledge**
- **Not evaluated in controlled clinical trials**
- The **interpretation and acceptance of such evidences for phytotherapeutic practices varies from one country to another.**

Learning outcomes

At the end of the course, students will be able to

- Describe the general history of herbal medicine.
- Explain the active constituents, **mechanism of action**, clinical applications, recommended dosage, and side effects of selected herbs and plants.
- Explain the different herb-drug interactions and herb-herb interactions.
- Able to identify the appropriate medicinal herb or plant extract/s according to specific patient requirement.
- Outline popular herbal medicines and nutraceuticals according to their intended use.
- Demonstrate ability to search and use the literature in both printed and electronic formats as well as develop the habit of life-long self-directed learning.

Teaching methods

1. **Lectures** will be delivered as power point presentations with demonstration in white board.
2. **Workshops** and **tutorials** will be conducted for discussion and practice of writing critical thinking questions and to improve written communication skill.
3. **Online Kahoot** sessions will be conducted as formative assessment for students.

Assessment Methods

Formative Assessment (Practice only, Kahoot Quiz & Tutorials)

Summative Assessment (Marks included)

Summative Assessment	Type questions	Marks
Class Test -1	MCQs, Fill up the blanks, SAQs	20
Class Test -2	MCQs, Fill up the blanks, SAQs	20
Quizzes (3)	Mid Exam	30
Final Exam	MCQs, SAQs, Fill up the blanks, True-False	40
Total		100

SYLLABUS

Week	Basic and support material to be covered
1-6	<ul style="list-style-type: none">➤ Glycosides➤ Saponins: Dioscoria, glycyrrhiza, quillaia, ivy, horse chestnut, centella➤ Flavonoid glycosides: rutin, hesperidin, genistin etc.➤ Anthocyanidin glycosides: pelargonidin, cyanidin, delphinidin, malvidin etc.➤ Cyanogenic / Cyanophore glycosides: amygdalin, prunasin➤ Isothiocyanate glycosides: sinigrin, sinalbin➤ Phenolic glycosides: arbutin, salicin➤ Aldehyde glycosides: glucovanillin, helicin➤ Bitter principles: Coumarins and furanocoumarins: scopoletin, psoralen, khellin, bergapten, aesculetin, xanthotoxin➤ Terpenoids: monoterpenes, sesquiterpenes, diterpenes.➤ Tannins: nutgall, hamamelis, greentea, catechin

SYLLABUS

Week	Basic and support material to be covered
7-11	<ul style="list-style-type: none">➤ Herbal medication and nutraceuticals for the management of dyslipidemia, atherosclerosis and hypertension.➤ Herbal medication for the management of colds, flu and asthma.➤ Herbal medication and nutraceuticals for the management of anxiety and depression.➤ Herbal therapy for the management of cancer.
12-16	<ul style="list-style-type: none">➤ Herbal medication and nutraceuticals for the management of diabetes.➤ Herbal medication and nutraceuticals used to treat rheumatoid or osteoarthritis.➤ Herbal medication and nutraceuticals used to treat gastrointestinal (GI) problems.➤ Herbal medicinal for dermatologic uses.➤ Gynecological and obstetric concerns regarding herbal medicinal use.➤ Herbal medication interferes with conventional medicine.

References

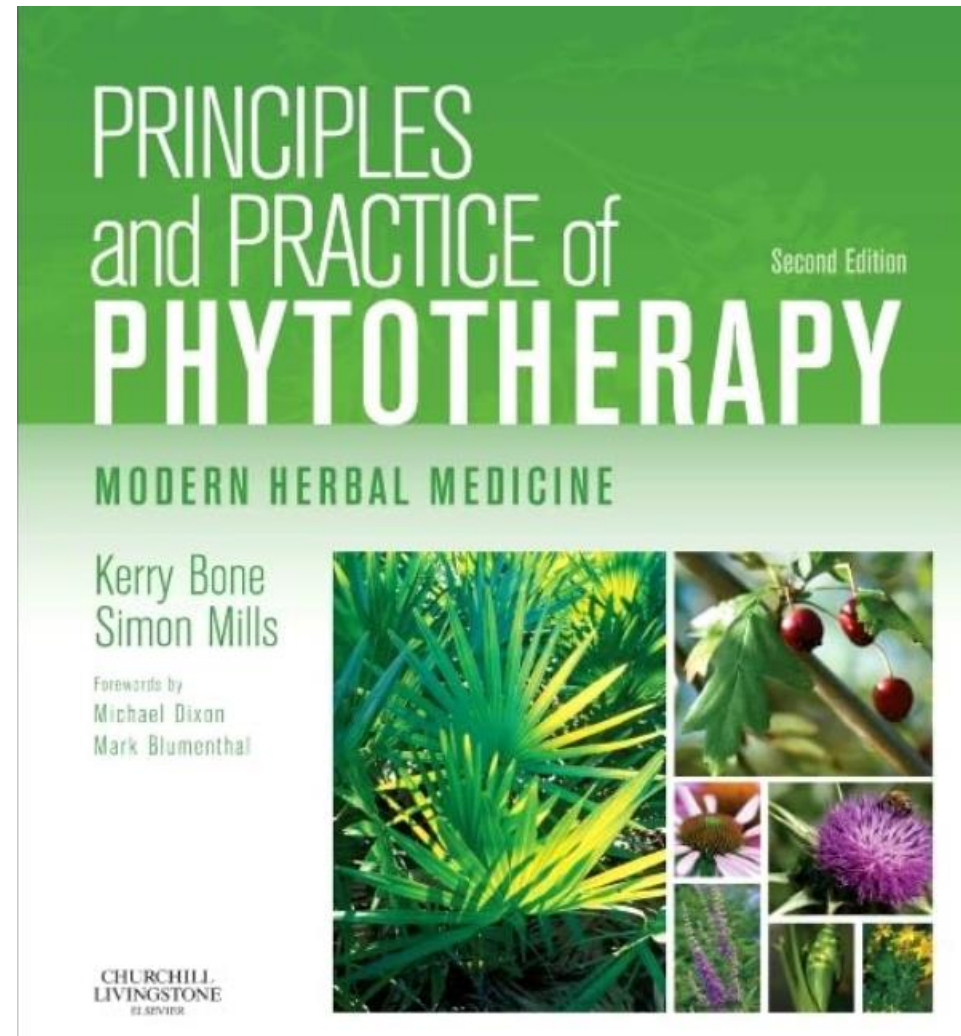
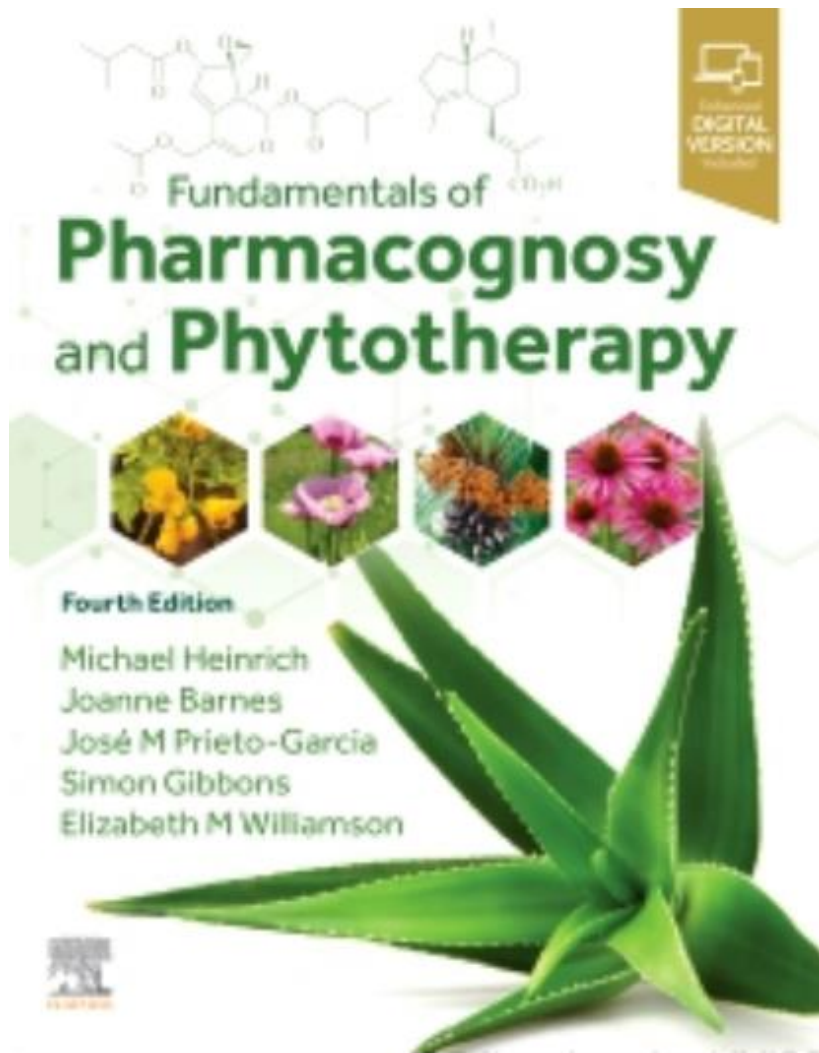
Textbooks:

- Fundamentals of Pharmacognosy and Phytotherapy; by Michael Heinrich, Joanne Barnes, Simon Gibbons and Elizabeth M Williamson (2012), Elsevier Ltd ISBN: 978-0-7020-3388-9.
- Fundamentals of Pharmacognosy and Phytotherapy. A Guide for Health Care Professionals by Carol A. Newal, Linda A. Anderson and J. David Phillipson. (2010). the Pharmaceutical Press, London, UK; ISBN: 0 85369-474-5.

Supplementary books:

- Herbal therapy for human diseases: Irfan Ali Khan and Atiya Khanum (2007), Ukaaz publications ISBN: 81-88279-43-9.
- Comprehensive pharmacy review; Leon Shargel Alan H. Mutnick et al; 4th edition ISBN:0-7817-2147-4.

BOOKS



Websites:

1. Natural Medicines Comprehensive Database (www.naturaldatabase.com)
2. www.pubmed.com
3. Food & Drug Administration (www.fda.gov)
4. A pharmacy monthly publications that includes articles on herbals (www.uspharmacist.com)
5. National Centre for Complementary & Alternative Medicine (www.altmed.od.nih.gov)
6. Report an adverse effect due to an herb/herbal product (www.fda.gov/medwatch)
7. National Centre for Compounds (www.nccam.nih.gov)