

課程名稱 (course name)	草藥入門				
	An Introduction to Herbal Therapy				
開課系所班級 (dept. & year)	通識教育中心	學分 (credits)	2	規劃教師 (teacher)	通識中心 古山吉 Kumar
課程類別 (course type)	必修	授課語言 (language)	中文或英文	開課學期 (semester)	上或下
課程簡述 (course description)	草藥入門是一門跨域學習的課程，融合了植物學、植物化學和藥理學。本課程將提供與保健和農業領域相關的植物學專業知識及實作，幫助學生能學用合一，將草藥應用於製藥產業。				
	<p>Phytomedicine is a multidisciplinary and collaborative field that incorporates plant sciences, phytochemistry and pharmacology. The principal aim of this course is to provide a theoretical knowledge, practical and specialized skills in the discovery and development of potentially beneficial natural products or formulations from plant sources. As well as their derivative uses, especially in the health and agricultural sectors.</p> <p>This course will enable the students/young scholars to work on the interface between a specialized research environment and practical problem solving area of phytomedicine production in the pharmaceutical industry. This course also will focusses the safety and efficacy issues around commonly used herbal products with a particular emphasis on pharmaceutical applications.</p>				
先修課程 (prerequisites)	無				
課程目標與核心能力關聯配比(%) (relevance of course objectives and core learning outcomes)					
課程目標	course objectives			核心能力 core learning outcomes	配比 合計 100%
1. 了解植物在日常健康生活扮演的角色。	1. Understanding the role of plants in healthy day-to-day life			人文素養	0%
2. 了解草藥如何與人體器官相互作用及癒合。	2. Understanding how herbal drugs interact with body organs and heal			科學素養	30%
3. 獲得常見疾病的草藥實用知識。	3. Gaining practical knowledge on preparation and utilization of herbal resources for common diseases			溝通能力	15%
				創新能力	30%
				國際視野	25%
				社會關懷	0%

課程目標之教學方法與評量方法
(teaching and assessment methods for course objectives)

教學方法 (teaching methods)	學習評量方式 (evaluation)
講授 lecture 討論 discussion 專題探討與製作 group project (Documentation of lesser known herbal home remedies for common diseases)	出席狀況 attendance/ participation 15% 作業 homework 30% 口頭報告 oral presentation 20% 書面報告 reports 35%

授課內容 (單元名稱與內容、習作 / 考試進度、備註)
(course content and homework / tests schedule)

Week	Topic of the lecture
1	Introduction to herbal therapy
2	Role of plants and plant-based natural products in the pharmacological industry
3	Classification of herbal drugs with special reference to chemotaxonomy
4	International trade of herbal products
5	Quality control of herbal products with reference to WHO guidelines
6	Common problems encountered maintenance of quality of crude drugs
7	Production of plant secondary metabolites by different techniques.
8	Improvement of yield, quality and factors effecting thereof
9	Mid-Term exam
10	Metabolic engineering
11	High through put screening of herbal drugs
12	Role of biomarkers in crude analysis
13	Drug discovery and development from the plant sources
14	Ethnobotany, chemotaxonomy and chemical ecology
15	Herbal formulation development
16	Evaluation of herbal drugs
17	Stability studies of phytochemical formulations
18	Final report submission and oral presentation

教科書與參考書目 (書名、作者、書局、代理商、說明)
(textbook & other references)

Major reference books

1. Bagetta G (2011) Herbal medicines: Development and validation of plant-derived medicines for human health. CRC Press, Boca Raton, USA. ISBN: 9781439837696.
2. Singh B, Peter KV (2018) New age herbals: Resource, quality and pharmacognosy. Springer Singapore. ISBN: 9789811082917.

3. Rai M, Carpinella MC (2006) Naturally occurring bioactive compounds. Elsevier, Boston, USA. ISBN: 9780444522412.
4. Khan MTH, Alther A (2006) Lead molecules from natural products: Discovery and new trends. Elsevier, Boston, USA. ISBN: 9780444516190.
5. Philips H (2018) Bioactive compounds in herbal medicine. World technologies, New York, USA. ISBN: 9781978902947.
6. Li S (2003) Compendium of Materia Medica (translated and annotated by Luo Ximen). Foreign Languages Press, Beijing, China.

Useful on-line resources

1. Traditional Chinese Medicine: <http://www.tcmbasics.com/materiamedica.htm>
2. Medicinal herbs & plants database: www.globinmed.com
3. The herb society of America: <https://www.herbsociety.org/>

課程教材（教師個人網址請列在本校內之網址）
(teaching aids & teacher's website)

另行公告 To Be Announced

課程輔導時間
(office hours)

另行公告 To Be Announced