



Phytomedicine and Natural Products

Presented by the Department of Plant and Soil Sciences, University of Pretoria

BLENDED LEARNING

The **Phytomedicine and Natural Products** course aims to provide practical and theoretical skills to South African scientists and researchers specialising in the discovery of new natural products from plants and their use that would be of benefit to, especially the health and agricultural sectors. You will be provided with the skills to undertake research within the discipline of Phytomedicine and Natural Products, as articulated during the course.

When completing this course, you will have the benefit of attending a specialised course in life sciences. You will, therefore, be able to work at the interface between a specialised research environment and the more practical immediate problem-solving arena within a phyto-drug industry.

This multidisciplinary and collaborative course will incorporate plant science, phytochemistry, pharmacology, plant pathology, as well as safety and efficacy issues of commonly used phyto-drugs – with emphasis on pharmaceutical and agricultural applications.

This course is delivered as a blended learning solution consisting of online components of self-directed learning supplemented by face-to-face contact sessions.

NEXT PAGE 

Shifting knowledge to insight



Phytomedicine and Natural Products

Presented by the Department of Plant and Soil Sciences, University of Pretoria

Course content

Day 1

- Principal modes of extraction employed in traditional Phytopharmacy
- Thin layer chromatographic separation of compounds in extracts
- Formulation and preparation of Herbal Medicines

Day 2

- Antibacterial activity of plant extracts using Microdilution assay

Day 3

- Observations and discussion of results
- Theme 1: Discussion with Prof. Meyer
- Theme 2: Discussion with Dr. Tshikalange
- Theme 3: Discussion with Prof. Lall
- Theme 4: Discussion with Dr. Kritzinger

Learning outcomes

After successfully completing this course, you will have

- comprehensive insight into the field of Phytomedicine and Natural Products and a familiarity with the relevant literature
- gained knowledge on pharmacological action of low and high molecular plant constituents
- learnt different bioassays used in the laboratory to scientifically prove or reject the claims made on traditional use of medicinal plants for various ailments. This includes antimicrobial bioassays and antityrosinase assays
- learnt practical aspects related to the manufacture of plant based drugs, quality control and phyto-drug formulation, and gained knowledge about the antimicrobial efficacy of natural plant products (botanicals) against plant pathogens, as well as the application thereof in promoting food safety and security.

Who should enrol?

This course is ideal for

- student interested in Medicinal Plant Sciences
- employers at pharmaceutical industries, alternative therapy treatment organisations such as naturopathy, homeopathy, herbal, food and cosmetic industries etc.
- entrepreneurs in pharmaceutical industries, and
- employees in the agricultural industries.

Admission requirements

Prospective delegates should at least have a Bachelor's Degree or B-Tech, or a matric certificate with five years' experience in the relevant industry will be considered under exceptional circumstances. Candidates will be selected by a steering committee and preference will be given to applicants who hold a degree or diploma.

Accreditation and certification

Enterprises University of Pretoria (Pty) Ltd is wholly owned by the University of Pretoria. As a public higher education institution, the University of Pretoria functions in accordance to the Higher Education Act 101 of 1997. Enterprises University of Pretoria offers short courses on behalf of the University and these short courses are not credit-bearing, and do not lead to formal qualifications on the National Qualifications Framework (NQF) – unless stated otherwise. Delegates who successfully complete a short course and comply with the related assessment criteria (where applicable) are awarded certificates of successful completion and/or attendance by the University of Pretoria.

Registration and enquiries

Course coordinator

Michelle Horn

Tel: +27 (0)12 434 2575

Email: michelle.horn@enterprises.up.ac.za

Course leader

Prof Namrita Lall

Department of Plant and Soil Sciences

Tel: +27 (0)12 420 2524

Email: namrita.lall@up.ac.za

Shifting knowledge to insight

 www.enterprises.up.ac.za

 +27 (0)12 434 2500  +27 (0)12 434 2505  info@enterprises.up.ac.za  Private Bag X41, Hatfield, 0028

For quotations on in-house training, email quote@enterprises.up.ac.za