

## COURSE INFORMATION SHEET



MALTA UNIVERSITY CONSULTING



# AWARD IN PHARMACOGNOSY & HERBAL PRODUCTS - April/May 2023

Date of issue: November 2022

<b>Course Duration:</b>	28 hours	<b>Time:</b> 5.00p.m. – 8.00p.m. (8 sessions)	5.00pm to 7:00pm (last 2 sessions)
<b>Dates:</b>	<b>April: Mon 17; Wed 19; Mon 24; Wed 26 (5.00 – 8.00p.m.)</b> <b>May: Wed 3; Mon 8; Thurs 11; Mon 15 (5.00 – 8.00p.m.)</b> <b>Wed 17; Mon 22 (5.00 – 7.00p.m.)</b>		
<b>Delivery:</b>	Campus Hub, Level 5, University of Malta	<b>Course Registration Fee:</b>	€360/UM students €345
<b>Deadline for Applications: Mon 10 April 2023</b>			
<b>Accreditation:</b>	This course has been approved by the Malta Further and Higher Education Authority (MFHEA) as equivalent to Level 6 (5 ECTS) – License No: 2013-FHI-019; Further & Higher Education Institution		

This course has been approved by Malta Enterprise under the [Get Qualified Scheme](#).

**Employers:** Speak to us about claiming from the [Jobsplus Investing in Skills Scheme](#)

### Aim and Contents of the Course

This course is primarily aimed at Qualified Personnel candidates that work in the pharmaceutical industry having a BSc in Chemistry/Biology, Professionals with a degree in Pharmacy-related subjects and Postgraduate students reading for Master's degree in Pathology/Pharmacology.

Attendees will learn how pharmacognosy has evolved throughout the ages and has developed into a way of life for some patients and consumers. Topics on how the European Union safeguards the European consumer from toxic and harmful natural medicines by a strict directive shall be covered. Due to the distinct classification of herbal substances and preparations into herbal medicines, food supplements and cosmetics, participants are guided on the general characteristics of these herbals from the legal and also scientific points of view to classification of herbal medicines in accordance with the 2004/24/EC herbals directive that has been now implemented in the general medicines directive, 2001/83/E.

### Course Outline – The Following topics will be covered throughout the course

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| <ul style="list-style-type: none"><li>• Introduction to Pharmacognosy: from Tradition to medicine.</li><li>• Drug Development in the case of Natural Products.</li><li>• History of Herbalism and Ethnobotany</li><li>• Legislation: Herbal Products: Medicine or Food?</li><li>• Phytomedicines used in Modern Therapies and Nutraceuticals</li></ul> | <ul style="list-style-type: none"><li>• Alternative medicine: Herbal Medicine, Aromatherapy and Apitherapy</li><li>• Introduction to Secondary Metabolites: Terpenoids, Glycosides, Flavonoids, Tannins and Alkaloids and principles of Extraction and Processing of secondary metabolites from Plants.</li><li>• <i>In vitro</i> and <i>in vivo</i> testing of secondary metabolites from Plants</li><li>• The Medicinal Cannabis industry</li></ul> |
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### The Lecturer

Prof Everaldo Attard graduated with honours in Pharmacy at the University of Malta (1994) and later furthered his studies on Maltese aromatic and medicinal plants by undertaking a Master of Science degree in Agricultural and Veterinary Pharmacy (1995). He furthered his specialization and obtained a Doctorate in Agriculture from the same University in 2001. Prof Attard has been lecturing in several areas related to medicinal plants and agricultural chemistry at the ex-Institute of Agriculture, Division of Rural Sciences and Food Systems within the Institute of Earth Systems and the Department of Pharmacy at the University of Malta. In 2007 he was officially recognised by the Medicines Authority and appointed as the herbal consultant in assessing herbal medicinal products and food supplements. Since then, he has been the Maltese delegate on the Committee on Herbal Medicinal Products at the European Medicines Agency and the Homeopathic Medicinal Products Working Group of the Heads of Medicines Agencies of the European Union. Prof Attard is the author/co-author of many papers and articles in renowned peer-reviewed medicinal plant journals, articles in professional journals and three book chapters. He has delivered a number of presentations and posters at various conferences both at national and international levels.

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## Certification

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Upon successfully completing the course with 80% attendance, attendees will receive an MFHEA Accredited Certificate from Malta University Consulting Ltd.

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## General Information

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For further information kindly contact: Malta University Consulting Ltd, Campus Hub, Block 'O' Level 7, University of Malta, Msida. Tel: 21240746;

Website: [www.maltaconsulting.mt](http://www.maltaconsulting.mt)

**For online registration and payment click [here](#)**

**Alternatively, to download the registration form click [here](#) and please email to:**

[maria.bugeja@muhc.com.mt](mailto:maria.bugeja@muhc.com.mt); [trainingservices@muhc.com.mt](mailto:trainingservices@muhc.com.mt)

**Cheques are to be made payable to Malta University Consulting Ltd.**

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### Learning outcomes:

By the end of this course, participants will be able to:

- Define ethnobotany and discuss the methodology used in this field;
- Distinguish between herbal medicines, nutraceuticals (food supplements) and cosmetics with their respective legislation;
- Understand these three categories by examples discussed in class;
- Distinguish between primary and secondary metabolism in terms of role and complexity within the plant species;
- Distinguish the utilisation of plant species to humans with respect to primary and secondary metabolites;
- Compare and contrast metabolites falling under different phytochemical classes particularly terpenoids, alkaloids, flavonoids and shikimate products, tannins, proteins, organic acids, non-flavonoid polyphenolics;
- Understand the different extraction processes depending on the class of metabolites in question;
- Understand the importance of pharmacological and toxicological testing for research but also commercialization of herbal medicines;
- Understand the problems provoked by poisonous plants due to intention or unintentional administration of these plants that may have potentially beneficial pharmacological effects at lower doses.

Attendees will be able to:

- ✓ Apply the principles of ethnobotany and devise a protocol for a specific useful plant;
- ✓ Apply legislative definitions to distinguish between herbal medicines, nutraceuticals and cosmetics;
- ✓ Classify any given compound as a primary or secondary metabolite;
- ✓ Categorise specific compounds into phytochemical classes;
- ✓ Devise an extraction protocol for a given plant with an un/known array of metabolites;
- ✓ Determine the best method of testing for the extract in question;
- ✓ Apply theoretical knowledge to practical and technical issues involving qualitative and quantitative approaches;
- ✓ Discuss the methods of preparation of herbal extracts;
- ✓ Give advice on the preparation of herbal extracts;
- ✓ Discuss with others quality and safety issues of the extract in question;
- ✓ Determine which extracts are safe
- ✓ Assess a herbal medicine dossier with all the scientific information provided
- ✓ Assess whether there is sufficient information on the herbal extract to be registered or authorised on the market
- ✓ Search for information related to ethnobotany and devise a protocol for a specific useful plant;
- ✓ Interpret legislation in terms of herbal medicines, nutraceuticals and cosmetics categorisation;
- ✓ Distinguish any given compound as a primary or secondary metabolite;
- ✓ Commence a study on a new plant or herbal extract;
- ✓ Prepare a dossier for the herbal extract.