



COURSE OBJECTIVES

The course aims to provide both theoretical and hands on methods on the techniques and development of standardized herbal extract. At the end of the course, trainees will be exposed to:-

- (i) Techniques applied in determining herbal extraction methods to develop a standardized herbal extract from lab to industrial scale.
- (ii) Techniques in transferring lab scale method in developing standardized herbal extracts to industrial scale.
- (iii) Understanding quality measures (QC) involved in herbal extraction and developing standardized herbal extracts with case studies focusing on Malaysian indigenous herbs listed in "Monograf

COURSE CONTENT

Theory

Code M1	Raw Material Preparations
M2	Extraction Processes
M3	Downstream Processing
M4	Product Formulations (Cosmeceuticals, Nutraceuticals, Flavour and Fragrances, Herbal Products)
M5	Product Quality Management and Registration

Practical

Code L1	Extractions and Downstream Processing (4 pilot plants)
L2	Product Formulations (1 Analytical Tool)



Course A

5 Day Training On **TECHNIQUES AND DEVELOPMENT OF STANDARDIZED HERBAL EXTRACT**

3 - 7 April 2017

Block N22, IBD UTM Johor Bahru, Johor

COURSE TUTORS



ASSOC. PROF. DR. CHUA LEE SUAN

Dr. Chua Lee Suan is a lecturer in Institute of Bioproduct Development (IBD), Universiti Teknologi Malaysia. Currently, she is in-charge of the Department of Analytics and Validation. A wide range of analytical testing platform is provided under IBD Laboratory Service, with the accreditation from Malaysia Standard ISO/IEC 17025. She is also a registered chemist and a technical assessor for ISO/IEC 17025. She has many years of experiences in natural product researches, particularly on metabolite profiling of local herbs and honey. Her active involvement in research activities can be seen from her commitment as a reviewer and editor for several well-known international journals.



DR. HARISUN BT. YAAKOB

Dr. Harisun Yaakob is the Manager for Research & Innovation at the Institute of Bioproduct Development (formerly CEPP) and have in service for the past 10 years. She graduated from the University of East Aglia in 2010 where she obtained her Ph.D (Biological Sciences). Prior to that, she completed her MSc in 2006 (Bioprocess Engineering) and BSc. (1999) in Universiti Teknologi Malaysia. Her professional expertise is on food and nutraceutical product development, phytochemical, cell culture and delivery systems. She received Anugerah Saintis Cemerlang 2005 from our Prime Minister based on her outstanding achievement. Her contributions on established a platform of laboratories and R&D activities in IBD UTM making IBD as reference centre for herbal, phytochemical and biochemical processing in the country.



DR. ZARANI MAT TAHER

Dr. Zarani Mat Taher is a Head of Herbal and Phytochemical Processing Unit at Institute of Bioproducts Development (formerly known as CEPP) and has in the service for the past 10 years. She graduated from University of Nottingham, United Kingdom in 2016 where she obtained her PhD in Biosciences. She completed her MEng (Bioprocess) in UTM and BSc (Hons) Biomedical Sciences in UPM. She also holds a Diploma in Aromatherapy and Diploma in Holistic Massage from International Therapy and Examination Council (ITEC) London where, she conducted lecturer and courses for complimentary practitioner. She is now focusing on the research and development as well as contract manufacturing for herbal material under Herbal Extraction Centre (HEC).



MR. SULAMAN NGADIRAN

Sulaiman Ngadiran is a Senior Research Chemical Engineer at the Institute of Bioproduct, with an expertise on herbal standardization and processing. He has a 14 years experience in both research and development and conducting contract manufacturing for herbal materials. Sulaiman has also worked with numerous SME's, governmental agencies and entrepreneurs to consult and advise on bioproduct design and development.



Course B

4 Day Course on **BIOPRODUCT DEVELOPMENT FROM MALAYSIAN MEDICINAL PLANTS**

15 - 18 May 2017

Block N22, IBD UTM Johor Bahru, Johor

INTRODUCTION

Malaysia has a diverse flora and fauna most of which has not been fully discovered and exploited. In fact, its rainforest stores a huge collection of plant species which are vital source for phyto-pharmaceutical, phytocosmetic and nutraceutical field. Currently in Malaysia, over 2,000 species of lower plants with medicinal and therapeutic properties have been identified and most of them have been used for many generations in various health care systems. This phenomenon provides ample opportunities for local companies to embark on plant based production and commercialization sectors. Unfortunately, the development for upscale market uses is hindered by the lack of information on high technologies and skills available in Malaysia. In response to this, this course aims to cater the need of disseminating information on various technologies for phytochemical processing and product development to scientists and researchers.

OBJECTIVES

The course aims to:

- To provide participants theoretical and practical knowledge on the current and emerging practices of phytochemical and herbal technology.
- To provide participants hands-on experience on the aspects of processing, physico chemical characterization and formulation.
- To expose participants in case studies on medicinal plant product development.



COURSE CONTENT

COURSE TUTORS

Day 1	0900 - 1000 Introduction (Prof. Dr. Mohamad Roji Sarmidi)
	1000 - 1030 Coffee/Tea Break
	1030 - 1100 Medicinal plant authentication and identification according to Malaysian Manograph (Part 1) (Prof. Dr. Zhari Ismail)
	1100 - 1230 Medicinal plant authentication and identification according to Malaysian Manograph (Part 2) (Prof. Dr. Zhari Ismail)
	1230 - 1400 Lunch
	1400 - 1500 Practical : Extraction (Pegaga, Lempoyang)
	1500 - 1600 Practical : Macroscopy, Microscopy
	1600 - 1700 Practical : Colour Test, Safety Tests, Microbial Limits
	1700 Coffee/Tea Break & End of Day 1

Day 2	0900 - 1000 Sample Preparation and Extraction (Dr. Zarani Mat Taher)
	1000 - 1030 Coffee/Tea Break
	1030 - 1130 Fractionation (Dr. Chua Lee Suan)
	1130 - 1230 Purification (Dr. Chua Lee Suan)
	1230 - 1400 Lunch
	1400 - 1500 Practical : Sample Preparation (Dr. Zarani Mat Taher)
	1500 - 1600 Practical : Fractionation (Dr. Chua Lee Suan)
	1600 - 1700 Practical : Purification (Dr. Chua Lee Suan)
	1700 Coffee/Tea Break & End of Day 2

Day 3	0900 - 1000 Chemical Characterization and Biologi Activity Part 1 (Dr. Rosnani Hasham)
	1000 - 1030 Coffee/Tea Break
	1030 - 1130 Chemical Characterization and Biologi Activity Part 2 (Dr. Rosnani Hasham)
	1130 - 1230 Chemical Characterization and Biologi Activity Part 3 (Assoc. Prof. Dr. Chua Lee Suan)
	1230 - 1400 Lunch
	1400 - 1500 Practical : Chemical Characterization and Biology Activity (Assoc. Prof. Dr. Chua Lee Suan)
	1500 - 1600 Practical : Chemical Characterization and Biology Activity (Assoc. Prof. Dr. Chua Lee Suan)
	1600 - 1700 Practical : Chemical Characterization and Biology Activity (Assoc. Prof. Dr. Chua Lee Suan)
	1700 Coffee/Tea Break & End of Day 3

Day 4	0900 - 1000 Product Development (Nano-based Cosmeceutical) (Dr. Rosnani Hasham)
	1000 - 1030 Coffee/Tea Break
	1030 - 1130 Product Development (Nano-based Cosmeceutical) (Dr. Harisun Yaakob)
	1130 - 1230 Product Development (Herbal Medicine) (Dr. Harisun Yaakob)
	1230 - 1400 Lunch
	1400 - 1500 Practical : Product Development (Nano-based Cosmeceutical) (Dr. Rosnani Hasham)
	1500 - 1600 Practical : Product Development (Nano-based Cosmeceutical) (Dr. Harisun Yaakob)
	1600 - 1700 Practical : Product Development (Herbal Medicine) (Dr. Harisun Yaakob)
	1700 Coffee/Tea Break & End of course

PROF. DR. MOHAMAD ROJI B. SARMIDI

Prof. Dr. Roji is the Research and Development Manager of IBD (formerly known as Chemical Engineering Pilot Plant), Universiti Teknologi Malaysia, Johor Baharu, Johor. He graduated from University of Surrey, Guilford and holds a PhD degree from Aston University, Birmingham. His research interests include process intensification for environmentally sustainable processes and development of biorefinery for the production of phytochemical. He also has strong interest in chronology management and industrial development issues. He has carried out several consultancy projects in industrial development studies for the state of Terengganu, Johor and Pahang.



PROF. DR. ZHARI ISMAIL

Prof. Dr. Zhari Bin Ismail is a Professor in Pharmaceutical Chemistry, School of Pharmaceutical Sciences, USM since 1982. Teaching Medicinal Chemistry & Pharmacognosy. He graduated from the University of Strathclyde, Scotland, UK. Ph.D Pharmaceutical Chemistry 1982. Registered Pharmacist. And Sarjana Farmasi 1976 from Institut Teknologi Bandung (ITB), Indonesia. Fellow of the Academy of Sciences Malaysia, Member National Fatwa Council (2012-2016).

ASSOC. PROF. DR CHUA LEE SUAN

Dr. Chua Lee Suan is a lecturer in Institute of Bioproduct Development (IBD), Universiti Teknologi Malaysia. Currently, she is in-charge of the Department of Analytics and Validation. A wide range of analytical testing platform is provided under IBD Laboratory Service, with the accreditation from Malaysia Standard ISO/IEC 17025. She is also a registered chemist and a technical assessor for ISO/IEC 17025. She has many years of experiences in natural product researches, particularly on metabolite profiling of local herbs and honey. Her active involvement in research activities can be seen from her commitment as a reviewer and editor for several well-known international journals.



DR. ROSNANI HASHAM

Dr Rosnani Hasham has completed her PhD in Biochemical Engineering from Dongguk University South Korea related to Skin Barrier Function and Anti-photoageing ingredients. She also holds a Diploma in Aromatherapy and Holistic Massage from International Therapy Examination Council (ITEC), London. She has dedicated her career to the concepts of skin health and the development of aromatherapy techniques and formulations that help in restoring skin to its original health and beauty. She is currently IBD's Research Associate, having been actively involved in R&D and commercialization of aromatherapy and cosmeceutical products for the past 14 years. She is also an advisor of Bakawali SPA at IBD, Universiti teknologi Malaysia. She has lectured and conducted courses all over Malaysia and has taught her technique and philosophy to hundreds of aromatherapy practitioners.

DR. HARISUN BT. YAAKOB

Dr. Harisun Yaakob is the Manager for Research & Innovation at the Institute of Bioproduct Development (formerly CEPP) and have in service for the past 10 years. She graduated from the University of East Anglia in 2010 where she obtained her Ph.D (Biological Sciences). Prior to that, she completed her MSc in 2006 (Bioprocess Engineering) and BSc. (1999) in Universiti Teknologi Malaysia. Her professional expertise is on food and nutraceutical product development, phytochemical, cell culture and delivery systems. She received Anugerah Saintis Cemerlang 2005 from our Prime Minister based on her outstanding achievement. Her contributions on established a platform of laboratories and R&D activities in IBD UTM making IBD as reference centre for herbal, phytochemical and biochemical processing in the country.



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REGISTER NOW!

COURSE FEE

Fee is inclusive of lunch, refreshments and course materials.

Accommodation is not included.

Course A 5 Day Training On TECHNIQUES AND DEVELOPMENT OF STANDARDIZED HERBAL EXTRACT

rm **2450.00** per participant

Course B 4 Day Course on BIOPRODUCT DEVELOPMENT FROM MALAYSIAN MEDICINAL PLANTS

rm **2250.00** per participant

Course A + Course B Register 2 pax, get **50%** discount for 3rd pax

Student postgraduates
get **10%** discount for each
course !



www.ibd.utm.my

Inquiries :

**LIFE LONG LEARNING UNIT
INSTITUTE OF BIOPRODUCT DEVELOPMENT
UNIVERSITI TEKNOLOGI MALAYSIA
81310 UTM Skudai, Johor**

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email : asrin@ibd.utm.my

Course A

5 Day Training on Techniques and Development of Standardized Herbal Extract

3 - 7 April 2017 . IBD UTM Johor Bahru, Johor

Course B

A 4 Day Course on Bioproduct Development From Malaysian Medicinal Plants

15 - 18 May 2017 . IBD UTM Johor Bahru, Johor

Course A + Course B

YES! I would like to register the following participants

Name 1

Designation

Name 2

Designation

COMPANY INFORMATION

Company

Address

Town

State

Tel

Fax

Email

Authorised Signatory (*This registration is invalid without signature from an authorised officer)

Name

Designation

Tel

Fax

Email

Signature

Method of Payment

Please kindly complete and return the reply form together with :

By cheque / Bank Draft which are made payable to **BENDAHARI UTM**
(CIMB Bank Berhad)

Account No
8006053536

Cancellation & Substitutions

A full refund will be promptly made for all written cancellations 2 weeks before the course. 50% refund will be made for written cancellations received 7 days before the course. A substitute may be made at any time.

Note

A) The organiser has the right to make any amendments that they deem to be in the best interest of the course and to cancel the course if insufficient registrations are received a week before course commencement date.

B) CERTIFICATE OF ATTENDANCE will be awarded at the end of the course.