



## UNIVERSITI TEKNOLOGI MARA

### AGR142: PRINCIPLES OF AGRICULTURE

<b>Course Name (English)</b>	PRINCIPLES OF AGRICULTURE <b>APPROVED</b>
<b>Course Code</b>	AGR142
<b>MQF Credit</b>	2
<b>Course Description</b>	This course is designed to introduce students and overview requirement for agriculture activities and requirement
<b>Transferable Skills</b>	Life Long Learning Skill Communication Skill Teamwork Skill
<b>Teaching Methodologies</b>	Lectures, Blended Learning, Case Study, Discussion, Presentation
<b>CLO</b>	CLO1 Identify the types of agriculture system in Malaysia based on their activities and contribution to national food productions. CLO2 Explain the basic principles requirements for agriculture activities CLO3 Demonstrate the agricultural practices and economic consideration for crop production
<b>Pre-Requisite Courses</b>	No course recommendations

Topics
<b>1. 1. INTRODUCTION</b> 1.1) 1.1 Definition of agriculture 1.2) 1.2 Malaysian agriculture profile 1.3) 1.2.1 The roles of agriculture in Malaysia 1.4) 1.2.2 Policies related to development of agricultural sector : National Agricultural Policy
<b>2. 2. CLASSIFICATION AND AGRICULTURE SYSTEM</b> 2.1) 2.1 Classification: Plantation and smallholding 2.2) 2.2 Agriculture system: Mono cropping and multiple cropping (integrated farming)
<b>3. 3. CROP GROWTH REQUIREMENT</b> 3.1) 3.1 Climatic factors: light, water, temperature and aeration 3.2) 3.2 Soil (edaphic) factors: soil classification, soil components, structure and texture, and soil fertility 3.3) 3.3 Plant nutrients: Types of nutrients ( Macro and micro nutrients), inorganic and organic nutrients, and source of nutrients
<b>4. 4. INTRODUCTION TO AGRICULTURAL PRACTICES</b> 4.1) 4.1 Land preparation 4.2) 4.1.1 Tillage operation 4.3) 4.1.2 Lining, terracing and holing 4.4) 4.2 Fertilizer management 4.5) 4.2.1 Types of fertilizer: compound and straight fertilizer, fertilizer grade 4.6) 4.2.2 Fertilizer application 4.7) 4.3 Weed management 4.8) 4.3.1 Classification and characteristics of weed 4.9) 4.3.2 Methods of controlling weeds: cultural, biological, mechanical, Chemical 4.10) 4.4 Pest and diseases management 4.11) 4.4.1 Types of pests and disease 4.12) 4.4.2 Methods of controlling pests and disease: biological, chemical, cultural and integrated pest management (IPM) 4.13) 4.5 Plant propagation 4.14) 4.5.1 Sexual: seeds 4.15) 4.5.2 Asexual (vegetative): grafting, marcotting, budding, cutting 4.6 Pruning and agriculture waste management 4.16) 4.7 Harvesting 4.17) 4.8 Water management: irrigation and drainage

**5. 5. ECONOMIC CONSIDERATIONS**

- 5.1) 5.1 General principles of economic analysis
- 5.2) 5.2 Financial and economic analyses
- 5.3) 5.3 Principles of marketing

**6. 6. MALAYSIAN AGRICULTURAL AUTHORITIES**

- 6.1) 6.1 Land development: FELDA, FELCRA, RISDA and various states organization
- 6.2) 6.2 Marketing of agricultural products: FAMA
- 6.3) 6.3 Extension services: MOA
- 6.4) 6.4 Development of commodity crops: MRB, MPOB, LKM, MPB
- 6.5) 6.5 Agricultural research: MARDI

Assessment Breakdown	%
Continuous Assessment	60.00%
Final Assessment	40.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Written assignment	20%	CLO3
	Presentation	Video presentation	20%	CLO2
	Test	Online test	20%	CLO1

<b>Reading List</b>	This Course does not have any book resources
<b>Article/Paper List</b>	This Course does not have any article/paper resources
<b>Other References</b>	<ul style="list-style-type: none"> <li>• Book Acquah, G 2005, <i>Principles of Crop Production: Theory, techniques and Technology. 2nd Edition.</i> , Pearson Prentice.</li> <li>• Book H. Edward Reiley and Carol I, Shry. Jr. 200, <i>Introductory Horticulture, Sixth Edition.</i> , Delmar Thomson Learning.</li> </ul>