



UNIVERSITI TEKNOLOGI MARA

AGR553: ECONOMICS OF AGRICULTURAL PRODUCTION

<b>Course Name (English)</b>	ECONOMICS OF AGRICULTURAL PRODUCTION <b>APPROVED</b>
<b>Course Code</b>	AGR553
<b>MQF Credit</b>	3
<b>Course Description</b>	This module deals with an introduction to production problems of agriculture in the modern economies. Emphasis is placed on the quantitative relationships that are basic to production process in agriculture. Special attention is also given regarding the level of factor costs and product prices and the nature of production patterns which allows the attainment of certain desired optima like profit maximization or cost minimization. Upon completion of the course the student will learn to list and explain different agricultural economic fields, including demand theory (e.g., demand and price analysis, consumer behaviour, and market price determination) and supply theory (e.g., production economics, cost analysis and optimal output levels).
<b>Transferable Skills</b>	The students will be able to communicate with peers verbally and to the facilitator in writing, through critical and systematic thinking, use and suggest alternative solutions to agricultural economics.
<b>Teaching Methodologies</b>	Lectures, Blended Learning, Tutorial, Discussion
<b>CLO</b>	<p>CLO1 Analyze the economics theory and its practical application pertaining to supply and demand, production function, profit maximization, market and firm equilibrium.</p> <p>CLO2 Conduct reasonable solutions to farm and economics problems using appropriate facts, concepts, principles, analytical techniques and theories from this economics course.</p> <p>CLO3 Communicate to peers verbally and to the facilitator in writing, through critical and systematic thinking, use the acquired theoretical knowledge in agricultural economics to suggest alternative solutions to economic and farm management issues.</p>
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. Introduction</b> 1.1) 1.1 Economic Theory versus Economic Model 1.2) 1.2 Economics versus Agricultural Production 1.3) 1.3 Agricultural Production Economics 1.4) 1.4 The subject matter of agricultural production economics 1.5) 1.5 Types of decision in agricultural production	
<b>2. Agricultural Production With One Variable</b> 2.1) 2.1 General theory of agricultural production 2.2) 2.2 Types and characteristics of agricultural production functions 2.3) 2.3 The Law of Diminishing Returns 2.4) 2.4 A Neoclassical Production Function 2.5) 2.5 Regions and elasticity of production	
<b>3. Profit Maximization with One Input and One Output</b> 3.1) 3.1 Total Physical Product versus Total Value of the Product 3.2) 3.2 Total factor or Resource Cost 3.3) 3.3 Value of the Marginal Product and Marginal Factor Cost 3.4) 3.4 Equating VMP and MFC 3.5) 3.5 General Conditions for Profit Maximization	

<b>4. Cost, Returns and Profits on the Output Side</b> 4.1) 4.1 Some basic Definitions 4.2) 4.2 Simple Profit Maximization from the output side 4.3) 4.3 The Duality of Cost and Production 4.4) 4.4 The Inverse of a Production Function 4.5) 4.5 Linkages Between Cost and Production Functions 4.6) 4.6 The Supply Function for the Firm
<b>5. Production with Two Inputs</b> 5.1) 5.1 An Isoquant and the Marginal Rate of Substitution 5.2) 5.2 Isoquants and Ridge Lines 5.3) 5.3 MRS and the Marginal Product 5.4) 5.4 Partial and Total Derivatives and Marginal Rate of Substitution
<b>6. Maximization in the Two-Input Case</b> 6.1) 6.1 Introduction to Maximization 6.2) 6.2 The Maximum of a Function 6.3) 6.3 Some Illustrative Examples 6.4) 6.4 Maximizing a Profit Function with Two Inputs
<b>7. Returns to Scale, Homogeneous Functions</b> 7.1) 7.1 Economies and Diseconomies of Size 7.2) 7.2 Economies and Diseconomies of Scale 7.3) 7.3 Homogeneous Production Functions
<b>8. The Cobb-Douglas Production Function</b> 8.1) 8.1 The Original Cobb-Douglas Function 8.2) 8.2 Some Characteristics of the Cobb-Douglas Type of Function 8.3) 8.3 Profit Maximization with the Cobb-Douglas Production Function
<b>9. Production of More Than One Product</b> 9.1) 9.1 Production Possibilities at the Farm Level 9.2) 9.2 General Relationships 9.3) 9.3 Competitive, Supplementary, Complementary and Joint Products
<b>10. Linear Programming and Budgeting</b> 10.1) n/a

Assessment Breakdown	%
Continuous Assessment	60.00%
Final Assessment	40.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Case Study	Assignment case study	10%	CLO3
	Discussion	Concept Paper	20%	CLO2
	Test	Test	30%	CLO1

Reading List	Recommended Text	Reference Book Resources
	<ul style="list-style-type: none"> <li>• Debertin, D. L. 2012, <i>Agricultural Production Economics</i>, 2nd Ed., Pearson Education</li> <li>• Penson J.B 2006, <i>Introduction To Agricultural Economics</i>, Ed., , Pearson Education New Jersey [ISBN: ]</li> </ul>	
<b>Article/Paper List</b>	This Course does not have any article/paper resources	
<b>Other References</b>	This Course does not have any other resources	