



UNIVERSITI TEKNOLOGI MARA

AGR703: ADVANCED AGRICULTURAL PRODUCTION ECONOMICS

Course Name (English)	ADVANCED AGRICULTURAL PRODUCTION ECONOMICS APPROVED
Course Code	AGR703
MQF Credit	3
Course Description	This course emphasizes the theoretical as well as the practical aspects of agricultural production economics. It further enhances the student's knowledge on the subject matter on areas which are vital for production economic research and applications of production data for effective decision making.
Transferable Skills	Current knowledge in production economics in agriculture
Teaching Methodologies	Lectures, Discussion, Presentation
CLO	<p>CLO1 Recall and explain key concepts of production economics including input-output models, input-input models, output-output models.</p> <p>CLO2 Analyze and relate an appropriate theoretical framework, a suitable analytical method and to undertake an informed empirical analysis for any given problem in agricultural production economics</p> <p>CLO3 Verify, assess, illustrate, and employ the concepts of agricultural production functions, cost and profit functions, risk management, technology and mathematical programming model.</p> <p>CLO4 Collaborate, motivate and truthful with group members in the group discussion, writing and presentations in the lecture room</p>
Pre-Requisite Courses	No course recommendations
Topics	
1. Review of Production Economics 1.1) Input-output models 1.2) Input-input models 1.3) Output-output models	
2. Agricultural Functional Forms and Specifications 2.1) Average vs Frontier production functions 2.2) Cobb-Douglas, CES, Translog production functions 2.3) Testing for functional forms 2.4) Basis for selection 2.5) Specification errors	
3. Data Analysis for Production Function Estimates 3.1) Estimation of the regression coefficient 3.2) Significance test, coefficient of multiple determination 3.3) Analysis of variance, autocorrelation multicollinearity	
4. Literature critiques 4.1) n/a	
5. Profit and Cost Functions 5.1) n/a	
6. Risk in Productions Analysis 6.1) n/a	
7. Technology Adoption and Technical Change 7.1) Aggregate impact 7.2) Measurement of technical change 7.3) Technology changes at the farm level	

8. Mathematical Programming and Simulation

8.1) n/a

9. Project Presentations

9.1) n/a

Assessment Breakdown	%
Continuous Assessment	70.00%
Final Assessment	30.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Individual Project	n/a	30%	CLO2
	Presentation	e-Presentation	10%	CLO4
	Test	open book test	15%	CLO1
	Test	open book test	15%	CLO3

Reading List	Recommended Text
	<ul style="list-style-type: none"> • Debertin, D.L. 1992, <i>Agricultural Production Economics</i>, Mac Millan New York • Beattie, Bruce and Robert, C. 1993, <i>The Economics of Production</i>, Wiley New York

Article/Paper List	Reference Article/Paper Resources
	<ul style="list-style-type: none"> • Wright, A 1971, Farming Systems, Models and Simulation, Dent, J.B., and Anderson, J.R. (eds.) <i>Systems Analysis in Agricultural Management</i>. Sydney, 17, 33 • Wooldrige, J.M. 2000, <i>Introductory Econometrics: A Modern Approach</i>, South Western College Publishing • Hardaker, J.B., Huirne, R.B.M., and Anderson, J.R. 1997, <i>Coping with Risk in Agriculture</i>. Oxon., UK: CAB International.

Other References
This Course does not have any other resources