## **Study Plan**

### **Faculty of Agriculture**

## MASTER in Agricultural Economics and Agribusiness Management (Thesis Track)

#### First: GENERAL RULES & CONDITIONS:

Plan Number 2013

- 1. This plan confirms to the valid regulations of programs of graduate studies.
- 2. Specialties of Admission:
  - The First priority: Bachelor's of Agricultural Economics and Agribusiness Management.
  - The Second priority: Bachelor's of Agricultural Sciences
  - The Third priority: Bachelor's of Economic Sciences
  - The Fourth priority: Bachelor's of Management Sciences
- 3. Admission policies: The First Policy

Second: SPECIAL CONDITIONS: None.

#### Third: STUDY PLAN: Studying (33) Credit hours as follows:

Course No.	Course Title	<b>Credit Hours</b>	Theory	Prac.	Prerequisite
0605710	Agricultural Price Analysis	3	3	-	
0605711	Agricultural Macroeconomics	3	3	-	
0605720	Agribusiness Management	3	3	-	
0605740	Agricultural and Food Policy	3	3	-	
0605750	Agricultural Econometrics	3	3	-	

## 1. Obligatory Courses : Studying (15) credit hours successfully:

#### 2. Elective Courses: Studying (9) Credit hours successfully from the following:

Course No.	Course Title	<b>Credit Hours</b>	Theory	Prac.	Prerequisite
0605712	Economics of Agricultural Production	3	3	-	
0605721	Farm Business Management	3	3	-	
0605722	Agricultural Project Appraisal and	3	3	-	
	Finance				
0605730	Agricultural Marketing Management	3	3	-	
0605731	International Markets and Agricultural	3	3	-	
	Trade				
0605741	Agricultural Economic Development	3	3	-	
0605742	Economics of Land and Water	3	3	-	
	Resources				
0605743	Economics of Environmental	3	3	-	
	Management				
0605751	Mathematical Programming for	3	3	-	
	Agribusiness				
0605752	Statistics for Agribusiness	3	3	-	

#### 3. Thesis: (9) Credit hours # (0605799).

## Course Description Faculty of Agriculture Master in Agricultural Economics and Agribusiness Management (Thesis Track)

#### (0605710) Agricultural Price Analysis

This course presents theory of costs and production; theories of market equilibrium under perfect competition, monopoly and oligopoly; welfare implications of different markets and of government policy tools; and, causes of market failure including externalities and information problems. It examines price information and markets, the causes of price variations and instability, the dynamic analysis of agricultural prices, and measurement and interpretation of factors affecting these prices.

#### (0605711) Agricultural Macroeconomics

This course deals with the theory of broad economic aggregates; national income, business cycles, investment and saving, employment, the price level, foreign trade and balance of payments,; the role of monetary and fiscal policies in the creation of employment, inflation and economic stability, and economic growth. It examines the nature and importance of linkages between agriculture and the macro-economy, the interrelationship between agriculture and other segments of the economy; and the dynamic forces in the economy, which affect agriculture. The changing role of agriculture in an economy under structural transformation will be key to understanding these linkages and how they evolve.

#### 0605712 Economics of Agricultural Production

Production economics principles are applied to both micro and macro economic problems. The course deals with concepts of optimum resource allocation within and among agricultural firms, economic theories of choice under conditions of imperfect knowledge and the application of these theories to production decisions, with special attention to the recent dynamic and stochastic production theory and model developments. Analysis of production and cost functions, methods of estimating supply response and price expectations are covered.

#### (0605720) Agribusiness Management

Planning, organizing, directing and controlling functions of management as they relate to agricultural business firms, and economic concepts, which underscore strategic management principles. Examination of agribusiness firms management with emphasis on effective communication in the management process, methods and tools which are used to evaluate business opportunities, management and control of financial resources and human resource management. Students will complete a market analysis study for an agribusiness product as part of the course requirements.

#### (3 Credit Hours)

(3 Credit Hours)

#### (3 Credit Hours)

## (3 Credit Hours)

#### (0605721) Farm Business Management

#### (3 Credit Hours)

(3 Credit Hours)

A study of managerial techniques and processes applied to farm firms involved in production of agricultural products. The course covers managerial planning, linear programming as a tool of farm planning, evaluation, and control of farm businesses. Principles of production economics and the decision making process are applied to farm management problems and to the allocation of land, capital, and labor resources in the farm business for profit maximization. The importance of information, and sources of agricultural risk and management of risk in farm planning will be integrated. Includes exercises on the application of principles to specific farm management problems.

#### (0605722) Agricultural Project Appraisal and Finance (3 Credit Hours)

Theory, application of concepts relating to economic and social benefit-cost analysis of private and public agricultural projects. This course aims at enabling students to setup project management systems, apply techniques of network analysis, and establishing a monitoring, and evaluation system for a specific project. The course covers Critical Path Analysis (CPA) and Project Evaluation and Reviewing Technique (PERT) for financial and accounting management, investment appraisal and financial analysis, capital budgeting, capital structure, and institutions involved in agricultural finance.

### (0605730) Agricultural Marketing Management (3 Credit Hours)

Determining Marketing problems of firms in the market or process farm products or handle farm supplies, and the tools of analysis for solving these problems. Major emphasis is on the analytical procedures and techniques required in short- and long-term outlook work; forecasting and projecting supply, demand and prices; and optimal market organization. Topics covered include structure of agricultural product and factor markets including a critique of theoretical analyses of industry structure, conduct and performance.

### (0605731) International Markets and Agricultural Trade (3 Credit Hours)

Theories of international agricultural trade, policies and trade negotiations are evaluated in detail. Special consideration is given to the international trade policy influences on agriculture. The international agricultural trade, imperfect competition, exchange rate economics, methods of protection by importers and methods of protection by exporters are discussed. Levels of economic integration, international trade regions, institutions, and policies of major trading nations are explored.

#### (0605740) Agricultural and Food Policy

General economic policy will be discussed in terms of how it impacts on farm income, economic growth and efficiency. Objectives, functions and instruments of agricultural and food policies and problems, policy analysis matrix (PAM), market failure and public intervention, structural adjustment policies in agriculture and food security in the international perspective. The effects of food and agricultural policies on farm prices, consumers, distribution of income, technology development, economic structure of farming, and performance of agricultural sector and markets are examined.

### (0605741) Agricultural Economic Development

Developments in agriculture related to food supply, social welfare, development and economic growth. Analysis of the economic, social, political, cultural, and institutional factors related to economic growth and development in agricultural sector. Models of development, agriculture in dualistic development models, resource efficiency and technical change, institutional constraints of development and remedial policies. Framework for evaluating outcome of alternative strategies in agricultural production, and marketing, and public policies that affect resource use in agriculture and the related agro-industrial complex. Examination of strategies and policies that inhibit and/or encourage the development of the agricultural sectors.

#### (0605742) Economics of Land and Water Resources (3 Credit Hours)

Applications of economic theory to utilization of land and water resources by both private and public sectors. Applicable laws, conservation, land and water use planning, trade off between public and private land use, externalities in resource use, and interrelationships between human resources and land are considered. Benefit-cost analysis of public water development programs; economic analysis of selected water allocation and valuation issues for surface and groundwater, brackish and treated wastewater, pollution, pricing. Appropriate research tools and decision criteria are discussed.

#### (0605743) Economics of Environmental Management

The course examines interrelationships of natural resource use and the environment; applied welfare and benefit-cost analysis and microeconomic tools for the analysis of environmental protection and externalities; valuation of the environment using market and non-market prices; productivity and earning changes, preventive expenditure and replacement costs approaches, contingent valuation, productivity of other activities, hedonic pricing, and travel cost model. Issues of property rights; legal and social constraints; policy approaches and sustainable development are covered.

#### (0605750) Agricultural Econometrics

Theory of mathematical statistics and classical simple and multiple linear regression models in context of economic application. Topics include multi-variate hypothesis, extensions of multiple regression, problems of estimation, and simultaneous equation methods. Econometric model building, including evaluation, forecasting, econometric simulation, and computer applications are included.

#### (0605751)Mathematical Programming for Agribusiness (3 Credit Hours)

Use of mathematical programming models to decision problems in agricultural and resource economics to solve firm-level and regional-level optimization problems subject to constraints. Application of mathematical programming to agribusiness and farm planning, including enterprise selection, optimal resource allocation, decisionmaking under risk and uncertainty, transportation and location problems, and dynamic modeling. Emphasis placed on modeling problems and interpretation of results.

# (3 Credit Hours)

#### (3 Credit Hours)

#### (3 Credit Hours)

#### (0605752) Statistics for Agribusiness

#### (3 Credit Hours)

The course aims to enable students to read critically empirical literature in economics and other social sciences and to use advanced analytical statistical methods in data analysis. Topics covered include a review of descriptive statistics, sampling methods, regression theory, probability theory, statistical analysis applied to the development and control of manufacturing operations of food products and quality control. Non-parametric tests, such as chi-square, Mann-Whitney and Kruskal-Wallis tests, and quantitative techniques, such as factor analysis, discriminant analysis, and cluster are analysis are covered. This course emphasizes computer applications, data analysis and interpretation of quantitative results.