University of Pretoria Yearbook 2020

MScAgric Agricultural Economics (Coursework) (02255001)

Minimum duration of study	2 years
Total credits	180
NQF level	09
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Programme information

Residence
On the recommendation of the relevant head of department, the Dean may set specific residential requirements for the MScAgric degree.

Renewal of registration
As long as progress is satisfactory, renewal of the registration of a master's student will be accepted for the second year of the study. Registration for a third and subsequent years will only take place when the Student Administration of the Faculty receives a written motivation which is supported by the relevant head of department and Postgraduate Studies Committee.

Curriculum
Subject to programme-specific requirements, the curriculum for the MScAgric degree consists of the following:

a. A dissertation; and
b. Further study in the major subject/s, augmented by ancillary modules prescribed by the Postgraduate Studies Committee, on the recommendation of the head of department. Such ancillary modules may be taken simultaneously with the major subject/s. Candidates in possession of the BScAgricHons degree may be exempted from additional ancillary modules.
c. Please note that not all modules will be offered in any one year.

General
Candidates are required to familiarise themselves with the General Regulations regarding the maximum period of registration and the requirements on the submission of a draft article for publication.

Admission requirements

- BScAgric major in agricultural economics
- A final grade point average of at least 60% at final-year level

Other programme-specific information

Students should complete a module in research methodology as preparation for the dissertation module.

Examinations and pass requirements

i. The examinations in the ancillary modules should be successfully completed prior to, or simultaneously with, the examinations in the major subject/s, unless the Faculty Board decides otherwise.
ii. General Regulation G.12.2 applies to the calculation of marks.
iii. In order to obtain the MScAgric degree, the candidate must pass all prescribed modules, including the examination in the major subject/s, as well as the dissertation.

Curriculum: Year 1

Minimum credits: 90

Minimum credits:

Core = 60 credits

Electives = 30 credits

ADDITIONAL PROGRAMME INFORMATION

Select TWO electives to the value of 30 credits according to the area of specialisation:

(Note: not all electives are presented each year. The presentation of an elective module is dependent on the number of students interested in enrolling for the module)

Areas of specialisation with relevant elective modules:

Agricultural and rural development:

For this area LEK 885 is compulsory

LEK 885 - Agricultural and rural development 885

Take one additional module from the following:

LEK 812 - Agricultural policy 812

LEK 833 - Food policy 833

LEK 884 - Advancec rural finance 884

Agricultural and rural finance:

LEK 822 - Advanced agricultural finance and risk management 822

LEK 884 - Advanced rural finance 884

Food and agribusiness management:

LEK 811 - Production economics 811

LEK 813 - Agribusiness marketing management 813

LEK 823 - Advanced agribusiness management 823

LEK 883 - Agricultural supply chain management 883

Food and agricultural policy:

LEK 811 - Production economics 811

LEK 812 - Agricultural policy 812

LEK 827 - International agricultural trade and policy 827

LEK 833 - Food policy 833

LEK 834 - Measuring and monitoring food security 834

Resource and environmental economics:

LEK 811 - Production economics 811

LEK 826 - Environmental evaluation and policy 826

LEK 886 - The economics of natural resources 886

LEK 887 - Selected topics in environmental economics 887

Core modules

Applied econometrics 810 (LEK 810)

Module credits	15.00
Prerequisites	No prerequisite.
Contact time	1 lecture per week, 1 practical per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 1 or Semester 2

Module content

Econometrics. Linear regression: assumptions of the linear regression model, OLS estimators and properties, hypothesis testing (single and multiple restrictions), forecasting, dummy variables. Violations of the linear model assumptions: multi-colinearity, heteroscedasticity, serial correlation and distributed lag models, (GLS estimators). Advanced topics: Quantitative response models (logit, tobit and probit analysis) co-integration, instrumental variables and 2-stage least squares.

Applied micro-economics 815 (LEK 815)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	1 practical per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 1

Module content

Economic models and empirical applications in food demand and agricultural production, welfare economics, risk analysis, and industrial organisation as it relates to the agricultural and food industry.

Institutional economics 882 (LEK 882)

Module credits	15.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	No prerequisites.
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 1

Module content

Institutional and behavioural economics. This module will expose students to the principles of the New Institutional Economics paradigm and how it can be utilized to improve the analysis of agricultural economic and agricultural development problems and issues. Major themes covered are: The agricultural development challenge: stylised features; new institutional economics: distinctive features and concepts; institutions and development: A historical and macro-perspective techno-economic characteristics and agricultural systems and products in poor countries; NIE analysis of markets and markets structures; the State: Political and institutional determinants of agricultural policy; collective action; transactions costs in smallholder agriculture; case studies.

Research methodology 888 (LEK 888)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Year

Module content

Research methodology and dissertation design. Research in perspective. The research process. Formulating research problems, hypotheses and objectives. Developing a conceptual framework. Review of literature. Methods and procedures. Data collection, processing and analysis. Developing a good research proposal.

Elective modules

Production economics 811 (LEK 811)

Module credits	15.00
Contact time	1 practical per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

Module content

This module follows on the final-year module LEK 421 and is taught at the intermediate level and now moves beyond the single input production function to analysis with multi-variable functions. Detailed exposure to production, cost and profit functions, and the duality that exists between these is a core element of the module. The focus will also be on the implications of the properties for the economic behavior of agents. At the end of this module students will have complete competence in algebraically solving for the cost minimisation and profit maximisation problems. Themes covered in the module are: Properties of production functions. Economic theory of cost. Economic Theory of Profits. Duality between the cost and production functions. Duality between the profit and production functions. Applied topics.

Agricultural policy analysis 812 (LEK 812)

Module credits	15.00
Contact time	1 practical per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

Module content

Agricultural policy analysis. The importance and place of agricultural policy. Policy incidence. Design of agricultural policy Instruments. Public choice theory and agricultural policy. Political economy of agricultural policy. Agricultural policy distortions. The role of the media in agricultural and food policy. Seminars.

Agribusiness marketing management 813 (LEK 813)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

Module content

Introduction to global food markets. Understanding marketing management in food and agriculture. Consumer behaviour and marketing research. Marketing management. Risks in agricultural commodity marketing. Marketing high-value and agro-processed foods. Food franchising. Food quality, labelling and food safety, intellectual property and geographical indicators. Procurement. Supermarkets, etc. Contract growing and marketing. Case studies.

Advanced agricultural finance and risk management 822 (LEK 822)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

Module content

Nature and scope of financial management. Investment alternatives and philosophy. Investment returns and risks. Security analysis, valuation and management. Turnaround strategies under financial stress: unbundling and unlocking value. Asset allocation and portfolio management. Influence of mega forces on financial decisions. Risk in agriculture and management thereof. Stochastic efficiency measures and simulation. Dynamic decision models.

Advanced agribusiness management 823 (LEK 823)

Module credits	15.00
Prerequisites	No prerequisites
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

Module content

Strategic management process in agribusiness. Strategic direction and leadership. Corporate governance and strategy. Internal environmental analysis for agribusiness strategy. External environmental analysis for an agribusiness. Competitor analysis. Strategy formulation: long-term goals and generic strategies. Strategy formulation: grand and functional strategies. Aligning strategy with industry life cycle. Strategic analysis and choice. Strategic risks. Strategy implementation and change management. Drivers of strategy implementation. Structural drivers and instruments for strategy implementation. Continuous improvement through strategic control and evaluation. Strategic management in not-for-profit organisations. Strategic management concepts for agribusiness in the global marketplace. Scenario planning. Agribusiness case studies.

Environmental valuation and policy 826 (LEK 826)

Module credits	15.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	No prerequisites.
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

Module content

Environmental valuation and policy. This module will review the basic principles of microeconomic theory needed for understanding and analysis of environmental problems, introduce market and non-market techniques of valuation of natural resources and environmental services (hedonic pricing, contingent valuation, transport cost, willingness-to-pay, cost-based techniques, etc.), public goods and environmental externalities, property rights regimes and selection of appropriate environmental policy instruments for management of environmental externalities.

Food policy 833 (LEK 833)

Module credits	15.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	Registration for at least a master's degree
Contact time	1 lecture per week, 1 practical per week, 1 seminar per week

Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

Module content

The concept and interrelated causes of food insecurity (production, markets and socio-economic climate) and the global food economy. Household coping strategies and response to risk and shocks. Household dynamics (including livelihoods, purchasing behaviour and nutrition). Practical tools for programme and policy analysis and targeting. Evaluation of possible programme and policy options and their effectiveness in terms of achieving comprehensive and pro-poor growth.

Measuring and monitoring food security 834 (LEK 834)

Module credits	15.00
Prerequisites	Registration for at least a master's degree
Contact time	1 discussion class per week, 1 lecture per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

Module content

Indicators, scores, indexes, measurement approaches, systems and analysis methods, for food security monitoring and evaluation. Best practice for surveys and qualitative methodologies. Communicating research results and food security information for decision makers. The data included in the module will cover agricultural crop and livestock, food stocks, nutrition, health, agrometerological, behavioural and sanitation related information.

Agricultural supply chain management 883 (LEK 883)

Module credits	15.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	No prerequisites.
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 1 or Semester 2

Module content

Agricultural supply chain analysis. Explore the evolution of supply chain management in the global food industry. Establish the different ways in which supply chain management can provide a source of competitive advantage at industry level and for individual firms. Examine the crossfunctional and multidisciplinary nature of supply chain management as it applies in the global food industry. Introduce the core elements of the theoretical literature on supply chain management and consider applications in different sectors. Provide students with practical experience in applying the principles of supply chain management to the exploitation of a marketing opportunity, using case examples from the fresh produce and meat sectors. Provide students with practical experience of undertaking a supply chain audit, with a view to establishing an appropriate business strategy for a food manufacturing company.

Advanced rural finance 884 (LEK 884)

Module credits	15.00
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 1

Module content

Overview of rural finance: conceptual issues. Role of financial services in economic development. Relationship between financial development and economic growth. Economic theory underlying rural financial markets: market and government failure, imperfect information, transaction costs, agency theory, and pecking order theory. Supply of and demand for financial services in rural areas: theory and measurement issues. Estimating credit demand, supply and constraints. Institutions involved in the provision of rural financial services and innovations in rural finance. Assessing performance of institutions providing rural financial services.

Agricultural and rural development 885 (LEK 885)

Module credits	15.00
Prerequisites	No prerequisites.
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

Module content

Review of theories and principles of growth and development. The role of agriculture in rural and economic development. The economic nature of smallholder agriculture. Problems and policies in agricultural and rural development: issues, options and challenges. Strategies for modernising agriculture (lessons from experience). Poverty dynamics, food and the environmental nexus. Land tenure reforms and policy.

The economics of natural resources 886 (LEK 886)

Module credits	15.00

Service modules	Faculty of Economic and Management Sciences
Prerequisites	LEK 810 or equivalent
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

Module content

The economics of natural resources. This course will introduce students to the techniques of optimisation overtime, optimal allocation and management of non-renewable and renewable resources, with case studies from Africa. The influence of property rights regimes on optimal natural resource use will also be stressed. The course consists of three main sections: Methods of dynamic optimisation; Theory of exhaustible and renewable resources and growth models; and Property rights and natural resource use with case studies from Africa.

Selected topics in environmental economics 887 (LEK 887)

Module credits	15.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	MIE 780 and EKT 713 or equivalents
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

Module content

Selected topics in environmental economics. This module will introduce students to various issues of special importance in environmental economics and policy with special emphasis on international dimensions. Examples of key themes to be covered include trade and the environment, trans-boundary externalities, global public goods, multi-lateral environmental agreements, international aid, economic growth and environmental change, poverty and the environment, etc. The main objective of the module is to equip students with the appropriate tools for analysing the linkages between economic development, trade and globalization, poverty, economic and environmental policy and environmental change.

Curriculum: Final year

Minimum credits: 90

Minimum credits:

Core = 90 credits

Core modules

Mini-dissertation: Agricultural economics 892 (LEK 892)

Module credits	90.00
Language of tuition	Module is presented in English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Year