

# University of Pretoria Yearbook 2019

# BCom Agribusiness Management (07130092)

Minimum duration of study	3 years		
Total credits	412		
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## Programme information

The purpose of this degree programme is to train students in the field of Economics and Business management as applied to the agricultural and agribusiness sector. The degree prepares students for management careers in agricultural sales and marketing, brokerage, market research, international market development, finance, public relations, food manufacturing and distribution, and agricultural-input industry.

Students who achieved 70% and above in English Home Language (an A or a B), and 80% and above in English First Additional Language (only an A) in the NSC (or equivalent) will be exempted from ALL 124 and therefore do not have to register and pass this module to complete their degrees. Students who achieved 69% and below in English Home Language (a C and below), and 79% and below in English First Additional Language (a B and below) have to register for ALL 124 and pass this module in order to be awarded their degrees.

## Admission requirements

- The following persons will be considered for admission: a candidate who is in possession of a certificate that is deemed by the University to be equivalent to the required Grade 12 certificate with university endorsement; a candidate who is a graduate from another tertiary institution or has been granted the status of a graduate of such an institution; and a candidate who is a graduate of another faculty at the University of Pretoria.
- Life Orientation is excluded when calculating the APS.

Minimum requirements				
Achievement level				
English Home Language or English First Additional Language		Mathemat	ics	APS
NSC/IEB	AS Level	NSC/IEB	AS Level	
5	С	5	С	30

\* Cambridge A level candidates who obtained at least a D in the required subjects, will be considered for admission. International Baccalaureate (IB) HL candidates who obtained at least a 4 in the required subjects, will be considered for admission.



## Additional requirements

- a. General Regulations G.1 to G.15 (with the exception of Regulation G.11.2(c)) apply to a bachelor's degree.
- b. A student may not take more than the prescribed number of modules per semester unless the Dean decides otherwise.
- c. A student may take a module not listed as an elective module only if the prior approval of the Dean has been obtained.
- d. A student who is in possession of a bachelor's degree may not present any modules passed for that degree for another field of specialisation or degree in this Faculty. (See General Regulations G.8 and G.9)
- e. A module passed at 300-level shall only be recognised for degree purposes if the corresponding prescribed module(s) at 200-level has/have been passed, unless the Dean decides otherwise, with the proviso that the following modules which are offered at 300-level only, are also considered "major subjects": Labour law 311 (ABR 311), Labour relations 320 (ABV 320) and International business management 359 and 369 (OBS 359 and 369); only two 14-week modules, or the equivalent thereof, that are not preceded by the 100- and 200-level modules, may be taken for degree purposes. In other words, at least four 14-week modules must be taken at 300-level that are preceded by the 100- and 200-level, except for modules offered on 200- and 300-level only.
- f. A module already passed may only be repeated with the approval of the Dean.
- g. A module passed may not be taken into account for more than one degree or field of specialisation.
- h. It remains the student's responsibility to ascertain, prior to registration, whether all the modules he/she intends taking can be accommodated in the class, test and examination timetables.
- i. The Faculty of Economic and Management Sciences supports an outcomes-based education system and places a high premium on the development of specific academic competences. Class attendance in all modules and for the full duration of all programmes is therefore compulsory for all students.
- j. The Dean has the right of authorisation regarding matters not provided for in the General Regulations or the Faculty Regulations.

## Other programme-specific information

## Note: See the alphabetical list of modules for the prerequisites for all modules.

# FRK 122 is a terminating module. Candidates will not be able to continue with Financial accounting in the second or third year.

## Specialisation modules: LEK 310, 320, 410.

## "Major subject"

To be considered a "major subject" the equivalent of four 14-week modules, including two at 300-level, must be passed provided that:

- the following modules which are offered at 300-level only, are also considered "major subjects": Labour law 311 (ABR 311), Labour relations 320 (ABV 320), and International business management 359 and 369 (OBS 359 and 369);
- only two 14-week modules, or the equivalent thereof, that are not preceded by the 100- and 200-level modules, may be taken for degree purposes. In other words, at least four 14-week modules must be taken at 300-level that are preceded by the 100- and 200-level, except for modules offered on 200- and 300-level only.



## Promotion to next study year

According to General Regulation G.3 students have to comply with certain requirements as set by the Faculty Board.

- a. A student must pass at least 4 core semester or 2 core year modules to be admitted to the subsequent year of study.
- b. If a student has passed less than the required minimum of 4 core semester or 2 core year modules, he/she will not be readmitted to the Faculty of Economic and Management Sciences. Such a student may apply in writing to the Faculty's Admissions Committee to be readmitted conditionally with the proviso that the Admissions Committee may set further conditions with regards to the student's academic progress. The Faculty's Admissions Committee may deny a student's application for readmission.
- c. If a student has been readmitted conditionally, his/her academic progress will be monitored after the first semester examinations to determine whether he/she has complied with the requirements set by the Admissions Committee. If not, his/her studies will be suspended.
- d. A student whose studies have been suspended because of his/her poor academic performance has the right to appeal against the decision of the Faculty's Admissions Committee.
- e. A student may be refused promotion to a subsequent year of study if the prescribed tuition fees are not paid.
- f. A student may be refused admission to the examination, or promotion to a subsequent year of study or promotion in a module (if applicable) if he/ she fails to fulfil the attendance requirements. Class attendance in all modules and for the full duration of all programmes is compulsory for all students.

## Pass with distinction

- a. A degree may be awarded with distinction provided the candidate meets the following criteria:
- i. Completes the degree within three years;
- ii. Obtains a Cumulative Grade Point Average (CGPA) of 75%;
- iii. Repeated passed modules will not be considered. The initial pass mark of module will be used when calculating the GPA.
- b. A degree will only be awarded with distinction to transferees from other degrees in the Faculty of Economic and Management Sciences, other faculties and from other universities who still complete their bachelor degrees within three years (including the years registered for the other degree and credits transferred and recognised).
- c. The GPA will be not be rounded up to a whole number.
- d. Exceptional cases will be considered by the Dean.

## **General** information

## Minimum requirements for bachelor's degrees; semester and year modules; new regulations

- Students who commenced their studies before 2015 must complete the programme in terms of the curriculum of the year in which they commenced their studies, or in terms of the curriculum of the year in which they switched to their current field of specialisation. Students who prefer to do so may, however, apply to change over to the latest curriculum, but then they should comply with all the requirements thereof and they may not revert to the regulations of an earlier year.
- 2. Students who are registering for a degree programme for the first time from 2015 onward must take the



modules indicated under the particular field of specialisation.

**Please note**: Only two 14-week modules, or the equivalent thereof, that are not preceded by the 100- and 200level modules, may be taken for degree purposes. In other words, at least four 14-week modules must be taken at 300-level that are preceded by the 100- and 200-level, except for modules offered on 200- and 300-level only. It is thus the responsibility of students to ensure before registration, that their curricula comply with all the requirements of the applicable regulations.



## Curriculum: Year 1

Minimum credits: 112

## **Fundamental modules**

## Academic information management 111 (AIM 111)

Module credits	4.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences Faculty of Humanities Faculty of Law Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology and Religion
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Department	Information Science
Period of presentation	Semester 1

#### **Module content**

Find, evaluate, process, manage and present information resources for academic purposes using appropriate technology.

## Academic information management 121 (AIM 121)

Module credits	4.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences Faculty of Humanities Faculty of Law Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology and Religion Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Department	Informatics
Period of presentation	Semester 2



Apply effective search strategies in different technological environments. Demonstrate the ethical and fair use of information resources. Integrate 21st-century communications into the management of academic information.

## Academic literacy for Economic and Management Sciences 124 (ALL 124)

Module credits	6.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Department	Unit for Academic Literacy
Period of presentation	Semester 1 and Semester 2

#### Module content

This module is intended to equip students with the competence in reading and writing required in the four high impact modules: Business Management, Financial Accounting, Statistics and Economics. Students will also be equipped to interpret and draw figures and graphs and to do computations and manage relevant formulas. Students attend two lectures per week during semester two.

This module is offered by the Faculty of Humanities.

## Academic orientation 107 (UPO 107)

Module credits	0.00
Language of tuition	Module is presented in English
Department	Economic and Management Sciences Deans Office
Period of presentation	Year

## **Core modules**

## Marketing Management 120 (BEM 120)

Module credits	10.00
Service modules	Faculty of Engineering, Built Environment and Information Technology
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Marketing Management
Period of presentation	Semester 2



This module provides an overview of the fundamentals of marketing by considering the exchange process, customer value, marketing research and the development of a marketing plan. It also addresses the marketing mix elements with specific focus on the seven service marketing elements namely the service product, physical evidence, people, process, distribution, pricing and integrated marketing communication.

### Economics 110 (EKN 110)

Module credits	10.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	No prerequisites.
Contact time	1 discussion class per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Economics
Period of presentation	Semester 1

#### Module content

This module deals with the core principles of economics. A distinction between macroeconomics and microeconomics is made. A discussion of the market system and circular flow of goods, services and money is followed by a section dealing with microeconomic principles, including demand and supply analysis, consumer behaviour and utility maximisation, production and the costs thereof, and the different market models and firm behaviour. Labour market institutions and issues, wage determination, as well as income inequality and poverty are also addressed. A section of money, banking, interest rates and monetary policy concludes the course.

## Economics 120 (EKN 120)

Module credits	10.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	EKN 110 GS or EKN 113 GS and at least 4 (50-59%) in Mathematics in the Grade 12 examination or 60% in STK 113 and concurrently registered for STK 123
Contact time	1 discussion class per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Economics
Period of presentation	Semester 2



This module deals with the core principles of economics, especially macroeconomic measurement the private and public sectors of the South African economy receive attention, while basic macroeconomic relationships and the measurement of domestic output and national income are discussed. Aggregate demand and supply analysis stands core to this course which is also used to introduce students to the analysis of economic growth, unemployment and inflation. The microeconomics of government is addressed in a separate section, followed by a section on international economics, focusing on international trade, exchange rates and the balance of payments. The economics of developing countries and South Africa in the global economy conclude the course.

Module credits	10.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Law Faculty of Natural and Agricultural Sciences
Prerequisites	No prerequisites.
Contact time	4 lectures per week
Language of tuition	Module is presented in English
Department	Accounting
Period of presentation	Semester 1

#### Financial accounting 111 (FRK 111)

#### Module content

The nature and function of accounting; the development of accounting; financial position; financial result; the recording process; processing of accounting data; treatment of VAT; elementary income statement and balance sheet; flow of documents; accounting systems; introduction to internal control and internal control measures; bank reconciliations; control accounts; adjustments; financial statements of a sole proprietorship; the accounting framework.

#### Financial accounting 122 (FRK 122)

Module credits	12.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Law Faculty of Natural and Agricultural Sciences
Prerequisites	FRK 111 GS or FRK 133, FRK 143
Contact time	4 lectures per week
Language of tuition	Module is presented in English
Department	Accounting
Period of presentation	Semester 2



Budgeting, payroll accounting, taxation – income tax and an introduction to other types of taxes, credit and the new Credit Act, insurance, accounting for inventories (focus on inventory and the accounting entries, not calculations), interpretation of financial statements.

#### Business management 114 (OBS 114)

Module credits	10.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	May not be included in the same curriculum as OBS 155
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Business Management
Period of presentation	Semester 1

#### Module content

The entrepreneurial mind-set; managers and managing; values, attitudes, emotions, and culture: the manager as a person; ethics and social responsibility; decision making; leadership and responsible leadership; effective groups and teams; managing organizational structure and culture inclusive of the different functions of a generic organisation and how they interact (marketing; finance; operations; human resources and general management); contextualising Sustainable Development Goals (SDG) in each of the topics.

#### Business management 124 (OBS 124)

Module credits	10.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	Admission to the examination in OBS 114
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Business Management
Period of presentation	Semester 2

#### Module content

Value chain management: functional strategies for competitive advantage; human resource management; managing diverse employees in a multicultural environment; motivation and performance; using advanced information technology to increase performance; production and operations management; financial management; corporate entrepreneurship.



### Statistics 110 (STK 110)

Module credits	13.00	
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Humanities Faculty of Natural and Agricultural Sciences	
Prerequisites	At least 5 (60-69%) in Mathematics in the Grade 12 examination. Candidates who do not qualify for STK 110 must register for STK 113 and STK 123	
Contact time	1 practical per week, 1 tutorial per week, 3 lectures per week	
Language of tuition	Module is presented in English	
Department	Statistics	
Period of presentation	Semester 1	

#### **Module content**

Descriptive statistics:

Sampling and the collection of data; frequency distributions and graphical representations. Descriptive measures of location and dispersion.

Probability and inference:

Introductory probability theory and theoretical distributions. Sampling distributions. Estimation theory and hypothesis testing of sampling averages and proportions (one and two-sample cases). Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

## Statistics 120 (STK 120)

Module credits	13.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	STK 110 GS or both STK 113 GS and STK 123 GS or both WST 133 and WST 143 or STK 133 and STK 143
Contact time	1 practical per week, 3 lectures per week, 1 tutorial per week
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Semester 2



Multivariate statistics:

Analysis of variance, categorical data analysis, distribution-free methods, curve fitting, regression and correlation, the analysis of time series and indices.

Statistical and economic applications of quantitative techniques:

Systems of linear equations: drafting, matrices, solving and application. Optimisation; linear functions (two and more independent variables), non-linear functions (one and two independent variables). Marginal and total functions. Stochastic and deterministic variables in statistical and economic context: producers' and consumers' surplus, distribution functions, probability distributions, probability density functions. Identification, use, evaluation, interpretation of statistical computer packages and statistical techniques.

This module is also presented as an anti-semester bilingual module.



## Curriculum: Year 2

Minimum credits: 175

## **Fundamental modules**

## Introduction to moral and political philosophy 251 (FIL 251)

Module credits	10.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Economic and Management Sciences
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Afrikaans and English are used in one class
Department	Philosophy
Period of presentation	Quarter 2, 3 and 4

#### Module content

In this module students are equipped with an understanding of the moral issues influencing human agency in economic and political contexts. In particular philosophy equips students with analytical reasoning skills necessary to understand and solve complex moral problems related to economic and political decision making. We demonstrate to students how the biggest questions concerning the socio-economic aspects of our lives can be broken down and illuminated through reasoned debate. Examples of themes which may be covered in the module include justice and the common good, a moral consideration of the nature and role of economic markets on society, issues concerning justice and equality, and dilemmas of loyalty. The works of philosophers covered may for instance include that of Aristotle, Locke, Bentham, Mill, Kant, Rawls, Friedman, Nozick, Bernstein, Dworkin, Sandel, Walzer, and MacIntyre.

## **Core modules**

#### Business law 210 (BER 210)

Module credits	16.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Economic and Management Sciences Faculty of Natural and Agricultural Sciences
Prerequisites	No prerequisites.
Contact time	2 lectures per week, 1 discussion class per week
Language of tuition	Separate classes for Afrikaans and English
Department	Mercantile Law
Period of presentation	Semester 1
Module content	

Basic principles of law of contract. Law of sales, credit agreements, lease.



#### Business law 220 (BER 220)

Module credits	16.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Economic and Management Sciences Faculty of Natural and Agricultural Sciences
Prerequisites	Examination entrance for BER 210
Contact time	2 lectures per week, 1 discussion class per week
Language of tuition	Separate classes for Afrikaans and English
Department	Mercantile Law
Period of presentation	Semester 2

#### Module content

Labour law. Aspects of security law. Law of insolvency. Entrepreneurial law; company law, law concerning close corporations. Law of partnerships.

<b>Economics</b>	214	(EKN	214)	
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Module credits	16.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	EKN 110 GS & EKN 120 OR EKN 113 GS & EKN 123; & STK 110 GS OR STK 113 & STK 123 & STK 120/121 or concurrently registered for STK 120/121 OR WST 111 & WST121 are prerequisites instead of STK 120/121 or WST 111 and concurrently registered for WST 121.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Economics
Period of presentation	Semester 1

#### Module content

Macroeconomics

From Wall and Bay Street to Diagonal Street: a thorough understanding of the mechanisms and theories explaining the workings of the economy is essential. Macroeconomic insight is provided on the real market, the money market, two market equilibrium, monetarism, growth theory, cyclical analysis, inflation, Keynesian general equilibrium analysis and fiscal and monetary policy issues.

#### Economics 224 (EKN 224)

Module credits	16.00
Service modules	Faculty of Education Faculty of Humanities Faculty of Natural and Agricultural Sciences



Prerequisites	EKN 110 GS & EKN 120 OR EKN 113 GS & EKN 123; & STK 110 GS OR STK 113 & STK 123 & STK 120/121 or concurrently registered for STK120/121 OR WST 111 & WST121 are prerequisites instead of STK 120/121 or WST 111 and concurrently registered for WST 121.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Economics
Period of presentation	Semester 1

Microeconomics

Microeconomic insight is provided into: consumer and producer theory, general microeconomic equilibrium, Pareto-optimality and optimality of the price mechanism, welfare economics, market forms and the production structure of South Africa. Statistic and econometric analysis of microeconomic issues.

## Communication management 282 (KOB 282)

Module credits	5.00	
Contact time	3 lectures per week	
Language of tuition	Module is presented in English	
Department	Division of Communication Management	
Period of presentation	Quarter 2	

#### Module content

\*Module content will be adapted in accordance with the appropriate degree programme. Only one of KOB 281– 284 may be taken as a module where necessary for a programme.

Applied business communication skills

Acquiring basic business communication skills will enhance the capabilities of employees, managers and leaders in the business environment. An overview of applied skills on the intrapersonal, dyadic, interpersonal, group (team), organisational, public and mass communication contexts is provided. The practical part of the module (for example, the writing of business reports and presentation skills) concentrates on the performance dimensions of these skills as applied to particular professions.

#### Introduction to agricultural economics 210 (LEK 210)

Module credits	12.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	Afrikaans and English are used in one class
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 1



Introduction to financial management in agriculture: Farm management and agricultural finance, farm management information; analysis and interpretation of farm financial statements; risk and farm planning. Budgets: partial, break-even, enterprise, total, cash flow and capital budgets. Time value of money. Introduction to production and resource use: the agricultural production function, total physical product curve, marginal physical product curve, average physical product curve, stages of production. Assessing short-term business costs; Economics of short-term decisions. Economics of input substitution: Least-cost use of inputs for a given output, short-term least-cost input use, effects of input price changes. Least-cost input use for a given budget. Economics of product substitution. Product combinations for maximum profit. Economics of crop and animal production.

## Agricultural economics 220 (LEK 220)

Module credits	12.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	[LEK 210 ] or [EKN 113 and/or EKN 120]
Contact time	3 lectures per week
Language of tuition	Afrikaans and English are used in one class
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

#### Module content

The agribusiness system; the unique characteristics of agricultural products; marketing functions and costs; market structure; historical evolution of agricultural marketing in South Africa. Marketing environment and price analysis in agriculture: Introduction to supply and demand analysis.

Marketing plan and strategies for agricultural commodities; market analysis; product management; distribution channels for agricultural commodities, the agricultural supply chain, the agricultural futures market.

#### Business management 210 (OBS 210)

Module credits	16.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Natural and Agricultural Sciences
Prerequisites	OBS 114 or 124 with admission to the examination in the other
Language of tuition	Module is presented in English
Department	Business Management
Period of presentation	Semester 1



Logistics management

The role of logistics in an enterprise; definition and scope of customer service; electronic and other logistics information systems; inventory management; materials management with special reference to Japanese systems; management of the supply chain. Methods of transport and transport costs; types and costs of warehousing; electronic aids in materials handling; cost and price determination of purchases; organising for logistics management; methods for improving logistics performance.

### Business management 220 (OBS 220)

Module credits	16.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Natural and Agricultural Sciences
Prerequisites	OBS 114 or 124 with admission to the examination in the other. Students from other Faculties are required to have 50% for Mathematics in Grade 12.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Business Management
Period of presentation	Semester 2

#### Module content

Project management and negotiations:

Introduction Project management concepts; needs identification; the project, the project manager and the project team; types of project organisations; project communication and documentation. Planning and control: planning, scheduling and schedule control of projects; resource considerations and allocations; cost planning and performance evaluation.

Negotiation and collective bargaining: The nature of negotiation; preparation for negotiation; negotiating for purposes of climate creation; persuasive communication; handling conflict and aggression; specialised negotiation and collective bargaining in the South African context.

## Statistics 210 (STK 210)

Module credits	20.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	STK 110, STK 120
Contact time	1 practical per week, 3 lectures per week
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Semester 1



Counting techniques. Probability theory: Sample spaces, events, rules of probability, conditional probabilities, independent events and Bayes' theorem. Probability distributions and probability densities: cumulative distribution functions, marginal distributions, joint distributions, conditional distributions and independence. Expected values: Moments, Chebyshev's theorem, moment-generating functions, product moments, moments of linear combinations of random variables and conditional expectations. Transformation techniques of random variables. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

Module credits	20.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	STK 210 GS
Contact time	1 practical per week, 3 lectures per week
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Semester 2

#### Module content

Special probability distributions: the discrete uniform distribution, Bernoulli distribution, binomial distribution, negative binomial and geometric distribution, the hypergeometric distribution, Poisson distribution and multinomial distribution. Special probability densities: Uniform distribution, gamma, exponential and chi-square distributions, the beta distribution, the normal distribution and the bivariate normal distribution. Functions of random variables. Sampling distributions, point estimation, interval estimation and hypothesis testing. Regression Analysis. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.



## Curriculum: Final year

Minimum credits: 123

## **Core modules**

### Economics 310 (EKN 310)

Module credits	20.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	EKN 214, EKN 234 or EKN 224, EKN 244
Contact time	2 lectures per week, 1 discussion class per week
Language of tuition	Afrikaans and English are used in one class
Department	Economics
Period of presentation	Semester 1

#### **Module content**

Public finance

Role of government in the economy. Welfare economics and theory of optimality. Ways of correcting market failures. Government expenditure theories, models and programmes. Government revenue. Models on taxation, effects of taxation on the economy. Assessment of taxation from an optimality and efficiency point of view. South African perspective on public finance.

## Economics 320 (EKN 320)

Module credits	20.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	EKN 310 GS
Contact time	1 discussion class per week, 2 lectures per week
Language of tuition	Afrikaans and English are used in one class
Department	Economics
Period of presentation	Semester 2



#### Economic analyses

Identification, collection and interpretation process of relevant economic data; the national accounts (i.e. income and production accounts, the national financial account, the balance of payments and input-output tables); economic growth; inflation; employment, unemployment, wages, productivity and income distribution; business cycles; financial indicators; fiscal indicators; social indicators; international comparisons; relationships between economic time series - regression analysis; long-term future studies and scenario analysis; overall assessment of the South African economy from 1994 onwards.

## Agricultural economics 310 (LEK 310)

Module credits	12.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	[LEK 210 or EKN 110] and [EKN 120]
Contact time	3 lectures per week
Language of tuition	Afrikaans and English are used in one class
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 1

#### Module content

Historical evolution of South African agricultural policy. Agriculture and the state: reasons for government intervention. Theoretical aspects of agricultural policy. Introduction to agricultural policy analysis. Welfare principles, pareto optimality. Macroeconomic policy and the agricultural sector. International agricultural trade.

## Agricultural economics 320 (LEK 320)

Module credits	16.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	LEK 220, LEK 210
Contact time	3 lectures per week, 2 practicals per week
Language of tuition	Afrikaans and English are used in one class
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

#### Module content

The modern food and agribusiness system. Key drivers in the global context. Whole farm planning and budget development The financial analysis of farm financial, financial modelling, the financing decision: capital acquisition, creditworthiness, different capital sources, capital structures. The investment decision and working capital management. Value chains in agribusiness. Risk management. Strategic management and marketing principles in agribusiness. Operational management and human resources management. Business planning for agribusiness.



## Agricultural market and price analysis 410 (LEK 410)

Module credits	20.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	LEK 220 and LEK 210
Contact time	2 practicals per week, 3 lectures per week
Language of tuition	Afrikaans and English are used in one class
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 1

## Module content

This module will focus on the fundamentals of demand, supply and agricultural price analysis. After providing an appropriate background in the theoretical concepts of demand and supply these basics will be applied in the generation of econometric simulation models. This will include the identification of supply and demand shifters as well as the elasticities, flexibilities, and impact multipliers. Practical experience in the formulation of these models will be attained from practical sessions. The student will submit a project in which he/she must analyse the demand or supply patterns of a commodity of his/her choice by generating an econometric model. Agricultural price analysis: price determination under different market structures followed by practical sessions on measuring market structures in various ways. This will include the calculation of market concentration. Price trend analysis and measurement of price changes by using indexes, and especially seasonal indexing. All of this will be supported by the relevant practical sessions.

## **Elective modules**

#### Agricultural economics 415 (LEK 415)

Module credits	16.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	EKN 110, LEK 220 and WTW 134 or WTW 165
Contact time	1 practical per week, 3 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 1

#### **Module content**

Derivative instruments in agriculture: To prepare students for taking the SAFEX Agricultural Markets Division brokerage exam. Giving an in-depth knowledge on the importance of hedging. Giving an in-depth knowledge on designing and implementation of low/zero risk hedging strategies. Introduction to the mathematics of portfolio management and mathematical modelling of derivatives. Working knowledge of the mathematical relationships in the management of a hedged portfolio. Working knowledge on the applicable software for managing derivative portfolios. Introduction into the management of option portfolios. To expand the thinking on the uses of derivatives, by also dealing with the hedging of diesel cost, interest rates and weather events.



## Agricultural economics 421 (LEK 421)

Module credits	20.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	LEK 410 and STK 210
Contact time	3 lectures per week, 2 practicals per week
Language of tuition	Separate classes for Afrikaans and English
Department	Agricultural Economics Extension and Rural Develo
Period of presentation	Semester 2

#### Module content

Price and production function analysis. Input -output, input -input and product -product relationships; profit maximization; the production process through time, economies of size; decision making in agriculture under risk and uncertain circumstances; linear programming.

#### Introduction to resource economics 424 (LEK 424)

Module credits	15.00
Service modules	Faculty of Economic and Management Sciences
Prerequisites	LEK 210
Contact time	3 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 reviews the origins and evolution of natural and environmental resource economics and its presentday main paradigms. Sources of externalities and causes of environmental degradation are examined. An introduction to the concepts and methods backing the design and implementation of environmental policies are provided. Economic valuation of natural and environmental resources is introduced.

The information published here is subject to change and may be amended after the publication of this information. The **General Regulations (G Regulations)** apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the **General Rules** section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.