

University of Pretoria Yearbook 2016

BCom Agribusiness Management (07130091)

| Duration of study | 3 years |
|-------------------|--|
| Total credits | 418 |
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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.

Admission requirements

- To be able to register NSC candidates must comply with the minimum requirements for degree studies as well as with the minimum requirements for the relevant study programme.
- Life Orientation is excluded when calculating the APS.

| Minimum Requirements for 2016 | | | | | | | | |
|----------------------------------|--------|----------|---------|---------|--------|----------|---------|----|
| Achievement Level | | | | | | | | |
| Afrikaans or English Mathematics | | | | APS | | | | |
| NSC/IEB | HIGCSE | AS-Level | A-Level | NSC/IEB | HIGCSE | AS-Level | A-Level | |
| 5 | 3 | с | с | 5 | 3 | С | С | 30 |

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 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 300level 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. Transferees from other faculties and from other universities who still complete their bachelor degrees (including credits transferred and recognised from the degrees they registered for originally) within three years will be considered as exceptional cases by the Dean.
- 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 in 2015 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: 126

Fundamental modules

Academic information management 101 (AIM 101)

| Module credits | 6.00 |
|------------------------|--|
| 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 Faculty of Veterinary Science |
| Prerequisites | No prerequisites. |
| Contact time | 2 lectures per week |
| Language of tuition | Both Afr and Eng |
| Academic organisation | Information Science |
| Period of presentation | Semester 1 |

Module content

Find, evaluate, process, manage and present information resources for academic purposes using appropriate technology. 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 | English |
| Academic organisation | Unit for Academic Literacy |
| Period of presentation | Semester 1 and Semester 2 |



This module intends 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. During Semester 1 students engage with the online computer program MyFoundationsLab individually in a flexible learning environment, and during Semester 2 they attend the scheduled contact sessions and do the coursework. *This module is offered by the Faculty of Humanities.*

Academic orientation 107 (UPO 107)

| Module credits | 0.00 |
|------------------------|-------------------|
| Language of tuition | Double Medium |
| Academic organisation | EMS Dean's Office |
| Period of presentation | Year |

Core modules

Principles of marketing management 110 (BEM 110)

| Module credits | 10.00 |
|------------------------|---|
| Service modules | Faculty of Engineering, Built Environment and Information Technology Faculty of Humanities Faculty of Natural and Agricultural Sciences |
| Prerequisites | No prerequisites. |
| Language of tuition | Both Afr and Eng |
| Academic organisation | Marketing Management |
| Period of presentation | Semester 1 |

Module content

Principles of marketing management and marketing instruments, customer centricity, the process of marketing management, market segmentation, positioning and marketing information systems, environmental analysis, identification of target markets, value creation, positioning strategies, consumer behaviour, relationship marketing, relationship intention, application of product, price, marketing communication and distribution strategies.

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 | 2 lectures per week, 1 discussion class per week |
|------------------------|--|
| Language of tuition | Both Afr and Eng |
| Academic organisation | Economics |
| Period of presentation | Semester 1 |

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 | 2 lectures per week, 1 discussion class per week |
| Language of tuition | Both Afr and Eng |
| Academic organisation | Economics |
| Period of presentation | Semester 2 |

Module content

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. |

Financial accounting 111 (FRK 111)



| Contact time | 4 lectures per week |
|------------------------|---------------------|
| Language of tuition | Both Afr and Eng |
| Academic organisation | Accounting |
| Period of presentation | Semester 1 |

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.

Communication management 182 (KOB 182)

| Module credits | 5.00 |
|------------------------|---|
| Prerequisites | Only one of KOB 181-184 may be taken as as a module where necessary for a programme |
| Language of tuition | Both Afr and Eng |
| Academic organisation | Div 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 181 - 184 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.

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 | Both Afr and Eng |
| Academic organisation | Business Management |
| Period of presentation | Semester 1 |



Introduction to business management as a science; the environment in which the enterprise operates; the field of business, the mission and goals of an enterprise; management and entrepreneurship. The choice of a form of enterprise; the choice of products and/or services; profit and cost planning for different sizes of operating units; the choice of location; the nature of production processes and the layout of the plant or operating unit. Introduction to and overview of general management, especially regarding the five management tasks: strategic management; contemporary developments and management issues; financial management; marketing and public relations. Introduction to and overview of the value chain model; management of the input; management of the purchasing function; management of the transformation process with specific reference to production and operations management; human resources management and information management; corporate governance and black economic empowerment (BEE).

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 | Both Afr and Eng |
| Academic organisation | Business Management |
| Period of presentation | Semester 2 |

Module content

Responsible leadership and the role of a business in society. The nature and development of entrepreneurship; the individual entrepreneur and characteristics of South African entrepreneurs. Looking at the window of opportunity. Getting started (business start up). Exploring different routes to entrepreneurship: entering a family business, buying a franchise, home-based business and the business buyout. This semester also covers how entrepreneurs can network and find support in their environments. Case studies of successful entrepreneurs - also South African entrepreneurs - are studied.

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 tutorial per week, 1 practical per week, 3 lectures per week |
| Language of tuition | Both Afr and Eng |



Academic organisation 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.

| 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 or STK 133 and STK 143 |
| Contact time | 1 practical per week, 3 lectures per week, 1 tutorial per week |
| Language of tuition | Both Afr and Eng |
| Academic organisation | Statistics |
| Period of presentation | Semester 2 |

Statistics 120 (STK 120)

Module content

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.

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 | Both Afr and Eng |
| Academic organisation | 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.

Marketing applications 122 (BEM 122)

| 10.00 |
|---|
| Faculty of Engineering, Built Environment and Information Technology Faculty of Humanities Faculty of Natural and Agricultural Sciences |
| BEM 110 GS |
| Both Afr and Eng |
| Marketing Management |
| Semester 2 |
| |

Module content

E-marketing, services marketing, not-for-profit marketing, business-to-business marketing, retailing, global marketing.



Curriculum: Year 2

Minimum credits: 170

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 | Double Medium |
| Academic organisation | 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 | Both Afr and Eng |
| Academic organisation | 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 | Both Afr and Eng |
| Academic organisation | Mercantile Law |
| Period of presentation | Semester 2 |
| | |

Module content

momine 214 (EKN 214)

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

| Economics 214 (EKN 214) | |
|-------------------------|---|
| 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 and EKN 120 or EKN 113 GS and EKN 123 and STK 110 GS and STK 120 GS |
| Contact time | 3 lectures per week |
| Language of tuition | Both Afr and Eng |
| Academic organisation | 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.

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 | Double Medium |
|------------------------|-----------------------------|
| Academic organisation | Agric Econ, Ext + Rural Dev |
| 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 | Double Medium |
| Academic organisation | Agric Econ, Ext + Rural Dev |
| 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 |
| Contact time | 3 lectures per week |
| Language of tuition | Both Afr and Eng |
| Academic organisation | 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 |
| Contact time | 3 lectures per week |
| Language of tuition | Both Afr and Eng |
| Academic organisation | Business Management |
| Period of presentation | Semester 2 |

Module content

Project management: 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.

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 | Double Medium |
| Academic organisation | 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.

Statistics 220 (STK 220)

| 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 | 3 lectures per week, 1 practical per week |
| Language of tuition | Double Medium |
| Academic organisation | 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.

Economics 234 (EKN 234)

| 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 214, STK 120 |
| Contact time | 3 lectures per week |
| Language of tuition | English |
| Academic organisation | Economics |
| Period of presentation | Semester 2 |



Macroeconomics

Application of the principles learned in EKN 214 on the world we live in. We look at international markets and dynamic macroeconomic models, and familiarise the students with the current macroeconomic policy debates. We also take a look at the latest macroeconomic research in the world. The course includes topics of the mathematical and econometric analysis of macroeconomic issues.



Curriculum: Final year

Minimum credits: 127

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 | Double Medium |
| Academic organisation | 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 | Double Medium |
| Academic organisation | 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 | Double Medium |
| Academic organisation | Agric Econ, Ext + Rural Dev |
| 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 | 18.00 |
|------------------------|---|
| 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 | Double Medium |
| Academic organisation | Agric Econ, Ext + Rural Dev |
| 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 | 24.00 |
|------------------------|---|
| 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 | Double Medium |
| Academic organisation | Agric Econ, Ext + Rural Dev |
| 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.

Agricultural economics 415 (LEK 415)

| Module credits | 18.00 |
|------------------------|---|
| Service modules | Faculty of Economic and Management Sciences |
| Prerequisites | EKN 110, LEK 220 and WTW 134 or WTW 165 |
| Contact time | 3 lectures per week, 1 practical per week |
| Language of tuition | Both Afr and Eng |
| Academic organisation | Agric Econ, Ext + Rural Dev |
| 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

24.00



| Service modules | Faculty of Economic and Management Sciences |
|------------------------|---|
| Prerequisites | LEK 410 and STK 210 |
| Contact time | 2 practicals per week, 3 lectures per week |
| Language of tuition | Both Afr and Eng |
| Academic organisation | Agric Econ, Ext + Rural Dev |
| Period of presentation | Semester 2 |

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 | English |
| Academic organisation | Agric Econ, Ext + Rural Dev |
| 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.