University of Pretoria Yearbook 2019

BCom Economics (07130052)

Minimum duration of study	3 years
Total credits	413
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Programme information

The purpose of this qualification is to provide graduates with knowledge on the working of economics and economic policy in South Africa and the influence exerted on it by the global economy and general markets conditions, related to government policy and regulation. This programme will provide students with the necessary theoretical and applied principles of the instruments and effects of economic policy, such as fiscal policy, monetary policy and labour policy. Graduates will be able to do a prognosis and analysis of the South African economy and therefore be able to advise management in the private as well as public sectors. Candidates will also be provided with the necessary statistic, computer and communication skills.

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		**Mathematics**		**APS**
NSC/IEB	AS Level	NSC/IEB	AS Level	
5	C	5	C	**32**

* 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 prerequisites of 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: EKN 310, 320, 314, 325.

"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

1. 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 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. 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: 132

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 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 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

Module content
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

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

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.

Financial accounting 111 (FRK 111)

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

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

Module content

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

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.

Mathematics 134 (WTW 134)

Module credits	16.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Veterinary Science
Prerequisites	50% for Mathematics in Grade 12
Contact time	4 lectures per week, 1 tutorial per week
Language of tuition	Module is presented in English

Department	Mathematics and Applied Mathematics
Period of presentation	Semester 1

Module content

**Students will not be credited for more than one of the following modules for their degree: WTW 134, WTW 165, WTW 114, WTW 158. WTW 134 does not lead to admission to Mathematics at 200 level and is intended for students who require Mathematics at 100 level only. WTW 134 is offered as WTW 165 in the second semester only to students who have applied in the first semester of the current year for the approximately 65 MBChB, or the 5-6 BChD places becoming available in the second semester and who were therefore enrolled for MGW 112 in the first semester of the current year.*
Functions, derivatives, interpretation of the derivative, rules of differentiation, applications of differentiation, integration, interpretation of the definite integral, applications of integration. Matrices, solutions of systems of equations. All topics are studied in the context of applications.

Linear algebra 146 (WTW 146)

Module credits	8.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences
Prerequisites	50% for Mathematics in Grade 12
Contact time	1 tutorial per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Mathematics and Applied Mathematics
Period of presentation	Semester 2

Module content

*Students will not be credited for more than one of the following modules for their degree:
WTW 124, WTW 146 and WTW 164. The module WTW 146 is designed for students who require Mathematics at 100 level only and does not lead to admission to Mathematics at 200 level.

Vector algebra, lines and planes, matrix algebra, solution of systems of equations, determinants. Complex numbers and polynomial equations. All topics are studied in the context of applications.

Calculus 148 (WTW 148)

Module credits	8.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences
Prerequisites	WTW 114 GS or WTW 134 GS
Contact time	2 lectures per week, 1 tutorial per week
Language of tuition	Module is presented in English
Department	Mathematics and Applied Mathematics

Period of presentation Semester 2

Module content

*Students will not be credited for more than one of the following modules for their degree:
WTW 124, WTW 148 and WTW 164. The module WTW 148 is designed for students who require Mathematics at 100 level only and does not lead to admission to Mathematics at 200 level.

Integration techniques. Modelling with differential equations. Functions of several variables, partial derivatives, optimisation. Numerical techniques. All topics are studied in the context of applications.

Curriculum: Year 2

Minimum credits: 151

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.

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 & 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

Module content

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.

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 and STK 120/121 or WST 121 OR concurrently registered for STK 120/121 or WST 121.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Economics
Period of presentation	Semester 2

Module content

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.

Economics 244 (EKN 244)

Module credits	16.00
Service modules	Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	EKN 224 and STK 120/121 or WST 121 OR concurrently registered for STK 120/121 or WST 121.
Contact time	3 lectures per week

Language of tuition	Module is presented in English
Department	Economics
Period of presentation	Semester 2

Module content

Microeconomics
From general equilibrium and economic welfare to uncertainty and asymmetric information. In this module we apply the principles learned in EKN 224 on the world around us by looking at the microeconomic principles of labour and capital markets, as well as reasons why the free market system could fail. We touch on the government's role in market failures. The course includes topics of the mathematical 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.

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

Module content
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	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: 130

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 314 (EKN 314)

Module credits	20.00
Service modules	Faculty of Natural and Agricultural Sciences
Prerequisites	EKN 234, EKN 244
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Department	Economics
Period of presentation	Semester 1

Module content

International trade/finance
International economic insight is provided into international economic relations and history, theory of international trade, international capital movements, international trade politics, economic and customs unions and other forms or regional cooperation and integration, international monetary relations, foreign exchange markets, exchange rate issues and the balance of payments, as well as open economy macroeconomic issues.

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

Module content

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.

Economics 325 (EKN 325)

Module credits	20.00
Service modules	Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	EKN 214, EKN 234
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

Module content

Economic policy and development: Capita select
The course provides an introduction to growth economics and also to some topics on development economics. Firstly, historical evidence is covered and then the canonical Solow growth model and some of its empirical applications (human capital and convergence). Secondly, the new growth theory (the AK and the Romer models of endogenous growth) are covered. Some of the development topics to be covered include technology transfer, social infrastructure and natural resources.

Statistics 310 (STK 310)

Module credits	25.00

Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Humanities Faculty of Natural and Agricultural Sciences
Prerequisites	STK 210, STK 220
Contact time	3 lectures per week, 1 practical per week
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Semester 1

Module content

Regression analysis: simple and multiple regression; nonlinear regression; correlation and the use of dummy variables. Multivariate distributions: normal, multinomial and poisson distribution. Linear combinations of normal variables. Analysis of variance and covariance. Regression analysis extensions: heteroscedasticity, serial correlation and lag structures. Applications of matrices, differentiation and integration in the economic and management sciences. Evaluation of simple economic models. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

Statistics 320 (STK 320)

Module credits	25.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Economic and Management Sciences Faculty of Natural and Agricultural Sciences
Prerequisites	WST 211, WST 221 WTW 211 GS and WTW 218 GS OR STK 210, STK 220.
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

Only one of the modules WST 321 or STK 320 may be included in any study programme. Stationary and non-stationary univariate time series. Properties of autoregressive moving average (ARMA) and autoregressive integrated moving average (ARIMA) processes. Identification, estimation and diagnostic testing of a time series model. Forecasting. Multivariate time series. Practical statistical modelling and analysis using statistical computer packages. Categorical data analysis. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques. Student seminars.

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.