



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

**Faculty of Economic and
Management Sciences**

Fakulteit Ekonomiese en Bestuurswetenskappe
Lefapha la Disaense tša Ekonomi le Taolo

2020
**Undergraduate
Degree Programmes**

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Welcome to the Faculty of Economic and Management Sciences

The Faculty of Economic and Management Sciences is one of the largest Faculties at the University of Pretoria. The Faculty aims to continuously strengthen its position as the leading SA faculty in the fields of economic, financial and management sciences through its academic and research excellence. At the same time the Faculty remains committed to delivering competent, creative, responsible and productive citizens – the “Thought Leaders” of the University of Pretoria and South Africa’s future business leaders.

General Regulations

The General Regulations (G Regulations) apply to all faculties of the University of Pretoria. It is expected of each student to fully familiarise himself or herself with these regulations. Ignorance concerning these regulations will not be accepted as an excuse for any transgression.

General Regulations are available at <https://www.up.ac.za/yearbooks/home>

General Faculty Rules

Academic literacy

Students who achieved 70% and above in English Home Language (a symbol A or B), and 80% and above in English First Additional Language (only a symbol 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 symbol C and below), and 79% and below in English First Additional Language (a symbol B and below) therefore have to register for ALL 124 and pass this module in order to be awarded their degrees.

Students who achieved 70% for English at Cambridge A level or AS level will be exempted from ALL 124.

Renewal of registration General Regulation G.3

1. Students of the University of Pretoria are registered for one year of study, or for a shorter period determined in general or in specific cases by the Council. After a year or period of study has expired, students wishing to continue their studies at the University must renew their registration and pay such fees for renewal of registration as are prescribed by the Council from time to time.

2. Re-registration is permitted only:

a) if the student has passed at least the following credits per year of study:

First year level: 70 credits

Second year level: 80 credits

Final year level: 60 credits

b) if the student completes the degree for which he or she is registered within the prescribed minimum period (in the EMS Faculty, the minimum period to complete a degree is three years) plus a maximum of two years – that is a total of five years.

For more details, refer to *Current Students* available at :<https://www.up.ac.za/faculty-of-economic-and-management-sciences>

Generic first semester modules at EMS

All BCom degrees have Accounting, Business Management, Economics, Statistics and Informatics modules in their first semester. A few degrees may prescribe additional other modules. The AIM modules and the five modules listed are known as the generic first semester at EMS and facilitates transfer to other BCom degrees in the faculty.

Transfers between BCom and other degrees at the University of Pretoria

Students will only be allowed to transfer to another BCom degree at the end of the first semester, provided they were enrolled for exactly the same modules and met the admission requirements of their new chosen degree.

Students will be allowed to transfer to other BCom degrees in the faculty with higher admission requirements at the end of their first year provided they meet all entry requirements as per the Transfer Guide under *Current Students*.

BCom (Extended Programme) students will only be allowed to transfer to the Hatfield campus provided they comply with all the requirements as per the Transfer Guide under *Current Students* and to other BCom degrees in the faculty with higher admission requirements, at the end of their first year at the Hatfield campus if requirements are met.

Special cases of individual students from other faculties who will be able to pass at least 4 core BCom modules at the end of the year, will also be considered for transfer in the middle of the year.

For more information regarding transfers to another BCom degree, refer to the Transfer Guide available under: *Current Students* at :<https://www.up.ac.za/faculty-of-economic-and-management-sciences>

Pass with distinction

A degree may be awarded with distinction provided the candidate meets the following criteria:

- Completes the degree within three years;
- Obtains a Cumulative Grade Point Average (CGPA) of 75%;
- Repeated passed modules will not be considered. The initial pass mark of module will be used when calculating the CGPA;
- 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); and
- The CGPA will not be rounded up to a whole number, it must be exactly 75% or more.

For more Faculty Rules, refer to: <https://www.up.ac.za/yearbooks/home>

Credits per module

Guide on link between hours of study required (notional hours) and credits per module

The credit-rating system rates 10 notional study hours as equivalent to one credit. Credits represent a measure of all the learning activities engaged in by the student and include, among others, contact time, self-study, WIL, assignments, projects and examinations.

An average full-time equivalent student is expected to study for at least a 40-hour week, thus requiring a minimum (not maximum) credit-load of 120 credits per academic year.

Credits for all modules are listed next to the module description under the different learning programmes.

BACHELOR OF COMMERCE**BCom (Extended programme) (07139923)**

Total credits required: 88 (96 for students planning to change to BCom (Econometrics) and 104 for BCom (Economics))

Core modules

<u>Code</u>	<u>Description</u>	<u>Credits</u>
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
BAM 133	Basic business mathematics 133	8
FRK 133	Financial accounting 133	8
FRK 143	Financial accounting 143	8
LST 133	Language, life and study skills 133	8
LST 143	Language, life and study skills 143	8
OBS 133	Business management 133	8
OBS 143	Business management 143	8
UPO 120	Academic orientation 120	0
STK 133	Statistics 133	8
STK 143	Statistics 143	16
or		
WST 133	Mathematical statistics 133	8
WST 143	Mathematical statistics 143	8
WTW 133	Precalculus 133	8
WTW 143	Calculus 143	8

* Students who want to continue with:

A BCom (Econometrics) degree will need to register for WTW 133 WTW 143, WST 133 and WST 143; and for a BCom (Economics) degree WTW 133, WTW 143, STK 133 and STK 143.

To register for these modules, a symbol 4 (50-59%) in must have been achieved for Mathematics in the NSC (or equivalent) exam.

Students who want to continue with any of the other BCom degrees at the Hatfield Campus, must register for BAM 133 and do not need to register for any WTW module.

Selection from the second academic year onwards, to be discussed with the Student Administration of the Faculty. Students are referred to the Transfer Guide (available under *Current Students* at: <https://www.up.ac.za/faculty-of-economic-and-management-sciences> for specific requirements regarding individual degrees.

This is the ideal starting point for students who are interested in studying towards BCom degrees in Management or Financial sciences. Students at Mamelodi Campus must apply during October of their first year to transfer to the Faculty of Economic and Management Sciences (Hatfield Campus).

Placement in BCom (Accounting Sciences) and BCom (Investment Management) can only be considered after the first year at Hatfield campus has been completed. Placement cannot be guaranteed as these are selection programmes where capacity is limited.

All modules must be passed in the first year to transfer to any of the BCom programmes.

Credits for modules passed at Mamelodi Campus will be granted as listed list below:

- AIM 111 and AIM 121 – as currently presented on the Hatfield Campus
- FRK 133 and FRK 143 – equivalent to FRK 111
- OBS 133 and OBS 143 – equivalent to OBS 114
- STK 133 and STK 143 – equivalent to STK 110
- WST 133 and WST 143 – equivalent to STK 110

BCom (Economic and Management Sciences) (07130222)

The programme is aimed at the educating of students in the Economic and Management Sciences, but it does not lead to a specific vocational outcome. However, students are able to compile their own curricula with a view to work opportunities in all sectors.

Total credits required: 408

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	10	0
Core modules	111 (91)	5 (37)	0
Elective modules	20 (40)	128 (96)	120
Total	145	143	120

First year (Credits required: 142)

Fundamental modules (Credits required: 14)

<u>Code</u>	<u>Description</u>	<u>Credits</u>
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 108)

<u>Code</u>	<u>Description</u>	<u>Credits</u>
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 121	Financial accounting 121*	12
	or	
FRK 122	Financial accounting 122*	12
INF 183	Informatics 183	3
KRG 110	Commercial law 110**	10
KRG 120	Commercial law 120**	10
OBS 114	Business management 114	10
OBS 124	Business management 124	10
STK 110	Statistics 110***	13
STK 120	Statistics 120***	13
	or	
STC 122	Statistics 122***	13
	or	
STK 113	Statistics 113***	11
STK 123	Statistics 123***	12
	or	
WST 111	Mathematical statistics 111	16
WST 121	Mathematical statistics 121	16

*FRK 122 is a terminating module. If FRK 122 is selected, a candidate will not be able to continue with Financial Accounting at second and final year level. Also note that FRK 121 may be a prerequisite for a number of other modules (e.g. BEL 200) and it is the responsibility of the candidate to ensure that he/she makes the appropriate choice between FRK 121 and 122.

** Business law (BER) 210, 220 may not be included in the same curriculum as Commercial law (KRG) 110, 120 for degree purposes.

***STK 110 & STK 120 and WST 111 & WST 121 may not be included in the same curriculum. Students who obtained at least a symbol 5 (60-69%) in Mathematics in the final NSC examination will be admitted to STK 110 and STK 120; all other students must first pass Statistics 113 and 123. STK 110 will be credited, but STK 120 still needs to be passed. STK 120 is a terminating module and to choose Statistics as a major module up to final year level, STC 122 must be passed.

Elective modules (Credits required: 20 (40) if Commercial Law is not included))

Code	Description	Credits
BDO 121	Industrial and organisational psychology 121	10
BEM 120	Marketing Management 120	10
INF 112	Informatics 112	10
PAD 112	Public administration 112	10
PAD 122	Public administration 122	10
WTW 114	Calculus 114	16
WTW 124	Mathematics 124	16
	or	
WTW 134	Mathematics 134	16
WTW 146	Linear algebra 146	8
WTW 148	Calculus 148	8

Second year (Credits required: 143)

Fundamental modules (Credits required: 10)

Code	Description	Credits
FIL 251	Introduction to moral and political philosophy 251	10

Core modules (Credits required: 5 (*37))

Code	Description	Credits
KOB 284	Communication management 284	5
BER 210	Business law 210*	16
BER 220	Business law 220*	16

* If KRG 110 and 120 were not chosen as core modules on first year-level, BER 210 and 220 must be included in the elective modules.

Elective modules (Credits required: 128)

Code	Description	Credits
BDO 221	Industrial and organisational psychology 221	10
BDO 222	Industrial and organisational psychology 222	16
BDO 223	Industrial and organisational psychology 223	16
BEL 200	Taxation 200	32
BEM 212	Consumer behaviour 212	16
BEM 224	Integrated brand communications 224	16
EKN 214	Economics 214	16
EKN 224	Economics 224	16
EKN 234	Economics 234	16
EKN 244	Economics 244	16
FBS 212	Financial management 212	16
FBS 222	Financial management 222	16
FRK 211	Financial accounting 211	16
FRK 221	Financial accounting 221	16

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INF 214	Informatics 214	14
INF 225	Informatics 225	14
INF 261	Informatics 261	7
OBS 210	Business management 210	16
OBS 220	Business management 220	16
PAD 212	Public administration 212	16
PAD 222	Public administration 222	16
STK 210	Statistics 210	20
STK 220	Statistics 220	20
or		
WST 211	Mathematical statistics 211	24
WST 221	Mathematical statistics 221	24
WTW 211	Linear algebra 211	12
WTW 218	Calculus 218	12
WTW 220	Analysis 220	12
WTW 221	Linear algebra 221	12
WTW 264	Differential equations 264	12
WTW 286	Differential equations 286	12

Final year (Credits required: 120)

Elective modules (120 credits)

Code	Description	Credits
ABR 311	Labour law 311	20
ABV 320	Labour relations 320	20
BDO 319	Industrial and organisational psychology 319	20
BDO 329	Industrial and organisational psychology 329	20
BEL 300	Taxation 300	40
BEM 314	Marketing research 314	20
BEM 321	Marketing management 321	20
EKN 310	Economics 310	20
EKN 314	Economics 314	20
EKN 320	Economics 320	20
EKN 325	Economics 325	20
FRK 311	Financial accounting 311	20
FRK 321	Financial accounting 321	20
OBS 310	Business management 310	20
OBS 320	Business management 320	20
PAD 312	Public administration 312	20
PAD 322	Public administration 322	20
WTW 310	Analysis 310	18
WTW 354	Financial engineering 354	18
WTW 381	Algebra 381	18
WTW 382	Dynamical systems 382	18
WTW 383	Numerical analysis 383	18
STK 310	Statistics 310	25
STK 320	Statistics 320	25
or		
WST 311	Multivariate analysis 311	18
WST 312	Stochastic processes 312	18
WST 321	Time-series analysis 321	18
WST 322	Actuarial statistics 322	18

Please note:

- If WTW or WST is chosen as core modules, the credits will increase.

BCom (Accounting Sciences) (07130043)

This programme is the specialised bachelor's degree for candidates who are preparing for the relevant qualifying examinations of the South African Institute of Chartered Accountants (SAICA) and the Independent Regulatory Board for Auditors (IRBA). The programme BCom (Accounting Sciences) is accredited by SAICA as part of its education requirements for the chartered accountant qualification and therefore the credit value of the degree exceeds the recommended credit range.

Total credits required: 455

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	6	0
Core modules	110	165	160
Elective modules	0	0	0
Total	124	171	160

First year (Credits required: 121)**Fundamental modules (Credits required: 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 110)

Code	Description	Credits
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FBS 121	Financial management 121	10
FRK 101	Financial accounting 101	24
INF 183	Informatics 183	3
INF 112	Informatics 112	10
KRG 110	Commercial law 110	10
KRG 120	Commercial law 120	10
OBS 114	Business management 114	10
STK 110	Statistics 110	13

Second year (Credits required: 171)**Fundamental modules (Credits required: 6)**

Code	Description	Credits
BPE 211	Professional ethics 211	6

Core modules (Credits required: 165)

Code	Description	Credits
BEL 200	Taxation 200	32
FBS 200	Financial management 200	32
FRK 201	Financial accounting 201	32
INF 264	Informatics 264	8
KOB 283	Communication management 283	5
KRG 200	Commercial law 200	24
ODT 200	Auditing 200	32

Final year (Credits required: 160)**Core modules (no electives)**

Code	Description	Credits
BEL 300	Taxation 300	40
FBS 300	Financial management 300	40
FRK 300	Financial accounting 300	40
ODT 300	Auditing 300	40

BCom (Agribusiness Management) (07130092)

The purpose of this degree programme is to educate 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.

Total credits required: 409

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	10	0
Core modules	101	165	88
Elective modules	0	0	31
Total credits required:	115	175	119

First year (Credits required: 115)**Fundamental modules (Credits required: 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 101)

Code	Description	Credits
BEM 120	Marketing Management 120	10
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 122	Financial accounting 122	12
INF 183	Informatics 183	3
OBS 114	Business management 114	10
OBS 124	Business management 124	10
STK 110	Statistics 110	13
STC 122	Statistics 122	13

Second year (Credits required: 175)**Fundamental modules (Credits required: 10)**

Code	Description	Credits
FIL 251	Introduction to moral and political philosophy 251	10

Core modules (Credits required: 165)

Code	Description	Credits
BER 210	Business law 210	16
BER 220	Business law 220	16
EKN 224	Economics 224	16
EKN 234	Economics 234	16
KOB 282	Communication management 282	5
LEK 210	Introduction to agricultural economics 210	12
LEK 220	Agricultural economics 220	12
OBS 210	Business management 210	16
OBS 220	Business management 220	16
STK 210	Statistics 210	20
STK 220	Statistics 220	20

Final year (Credits required: 119)**Core modules (Credits required: 88)**

Code	Description	Credits
EKN 310	Economics 310	20
EKN 320	Economics 320	20
LEK 310	Agricultural economics 310	12
LEK 320	Agricultural economics 320	16
LEK 410	Agricultural market and price analysis 410	20

Elective modules (Choose 2) (Minimum credits required: 31)

Code	Description	Credits
LEK 415	Agricultural economics 415	16
LEK 421	Agricultural economics 421	20
LEK 424	Introduction to resource economics 424	15

Bachelor of Commerce BCom (Business Management) (07130068)

The purpose of the BCom (Business Management) programme is to educate students as responsible entrepreneurs, business managers and leaders that create shared value in an innovative manner by equipping them with the knowledge, skills and attributes for critical thinking.

Total credits required: 403

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	10	0
Core modules	101	138	140
Elective modules	0	0	0
Total credits required:	115	148	140

First year (Credits required: 112)**Fundamental modules (Credits required: 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6

UPO 107 Academic orientation 107 0

Core modules (Credits required: 101)

Code	Description	Credits
BEM 120	Marketing Management 120	10
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 122	Financial accounting 122	12
INF 183	Informatics 183	3
OBS 114	Business management 114	10
OBS 124	Business management 124	10
STK 110	Statistics 110*	13
STK 120	Statistics 120*	13
	or	
STK 113	Statistics 113*	11
STK 123	Statistics 123*	12

*Students who did not obtain a 5 (60-69%) for Mathematics in the Grade 12 final examination, must register for and pass STK 113 and STK 123. Credit will be granted for STK 110 on grounds of STK 113 and 123, but STK 120 must also be passed.

Second year (Credits required: 148)**Fundamental modules (Credits required: 10)**

Code	Description	Credits
OBS 214	Responsible management 214	10

Core modules (Credits required: 138)

Code	Description	Credits
BEM 212	Consumer behaviour 212	16
BER 210	Business law 210	16
BER 220	Business law 220	16
FBS 212	Financial management 212	16
FBS 222	Financial management 222	16
OBS 210	Business management 210	16
OBS 211	Design thinking and business innovation 211	16
OBS 212	Business creation 212	10
OBS 220	Business management 220	16

Final year (Credits required: 140)**Core modules (no electives)**

Code	Description	Credits
BEM 314	Marketing research 314	20
OBS 310	Business management 310	20
OBS 330	Business management 330	20
OBS 359	International business management 359	20
OBS 370	Business analytics 370 (offered from 2021)	20
OBS 371	Responsible leadership 371 (offered from 2021)	20
BDO 319	Human resource management 319 (offered from 2021)	20

BCom (Econometrics) (07130012)

The purpose of this qualification is to provide graduates with knowledge on the working of economics and economic policy in South Africa and the foundations of econometric models. After completing this programme, candidates will be able to do a prognosis, analysis and forecast of the South African economy.

This degree will provide the graduate with the necessary practical skills for using economic and econometric models that management or government can apply in policy. Candidates will be able to do basic statistical analyses of economic trends and to apply the necessary computer and communication skills.

Total credits required: 416

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	0	0
Core modules	119	149	134
Elective modules	0	0	0
Total credits required:	133	149	134

First year (Credits required: 130)**Fundamental modules (Credits required: 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 119)

Code	Description	Credits
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 122	Financial accounting 122	12
INF 183	Informatics 183	3
OBS 114	Business management 114	10
WST 111	Mathematical statistics 111	16
WST 121	Mathematical statistics 121	16
WTW 114	Calculus 114	16
WTW 124	Mathematics 124	16

Second year (Credits required: 149)**Core modules (no electives)**

Code	Description	Credits
EKN 214	Economics 214	16
EKN 224	Economics 224	16
EKN 234	Economics 234	16
EKN 244	Economics 244	16
INF 264	Informatics 264	8
KOB 282	Communication management 282	5
WST 211	Mathematical statistics 211	24
WST 221	Mathematical statistics 221	24
WTW 211	Linear algebra 211	12
WTW 218	Calculus 218	12

Final year (Credits required: 134)**Core modules (no electives)**

Code	Description	Credits
EKN 310	Economics 310	20
EKN 314	Economics 314	20
EKN 320	Economics 320	20
EKN 325	Economics 325	20
WST 311	Multivariate analysis 311	18
WST 312	Stochastic processes 312	18
WST 321	Time-series analysis 321	18

BCom (Economics) (07130052)

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 statistical, computer and communication skills.

Total credits required: 418

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	10	0
Core modules	123	141	130
Elective modules	0	0	0
Total credits required:	137	151	130

First year (Credits required 137)**Fundamental modules (Credits required: 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 123)

Code	Description	Credits
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 122	Financial accounting 122	12
INF 183	Informatics 183	3
OBS 114	Business management 114	10
OBS 124	Business management 124	10
STK 110	Statistics 110	13
STC 122	Statistics 122	13
WTW 134	Mathematics 134	16

WTW 146 Linear algebra 146	8
WTW 148 Calculus 148	8

Second year (Credits required 151)

Fundamental modules (Credits required: 10)

Code	Description	Credits
FIL 251	Introduction to moral and political philosophy 251	10

Core modules (Credits required: 141)

Code	Description	Credits
BER 210	Business law 210	16
BER 220	Business law 220	16
EKN 214	Economics 214	16
EKN 224	Economics 224	16
EKN 234	Economics 234	16
EKN 244	Economics 244	16
KOB 282	Communication management 282	5
STK 210	Statistics 210	20
STK 220	Statistics 220	20

Final year (Credits required: 130)

Core modules (no electives)

Code	Description	Credits
EKN 310	Economics 310	20
EKN 314	Economics 314	20
EKN 320	Economics 320	20
EKN 325	Economics 325	20
STK 310	Statistics 310	25
STK 320	Statistics 320	25

BCom (Financial Sciences) (07130206)

The purpose of this qualification is to equip students with detailed comprehensive knowledge and specific skills in a number of fields in the Financial Sciences which can be applied in the private as well as public sectors. It provides learners with vocational training which prepares them to write the qualifying examinations of a number of professional qualifications in the Financial Sciences.

Total credits required: 413

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	10	0
Core modules	101	168	120
Elective modules	0	0	0
Total credits required:	115	178	120

First year (Credits required: 112)

Fundamental modules (Credits required: 14)

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4

ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 101)

Code	Description	Credits
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 121	Financial accounting 121	12
INF 183	Informatics 183	3
INF 112	Informatics 112	10
OBS 114	Business management 114	10
OBS 124	Business management 124	10
STK 110	Statistics 110	13
STK 120	Statistics 120	13

Second year (Credits required: 178)**Fundamental modules (Credits required: 10)**

Code	Description	Credits
FIL 251	Introduction to moral and political philosophy 251	10

Core modules (Credits required: 168)

Code	Description	Credits
BEL 200	Taxation 200	32
BER 210	Business law 210	16
BER 220	Business law 220	16
FRK 211	Financial accounting 211	16
FRK 221	Financial accounting 221	16
INF 264	Informatics 264	8
IAU 200	Internal auditing 200	32
FBS 210	Financial management 210	16
FBS 220	Financial management 220	16
	or	
FBS 212	Financial management 212	16
FBS 222	Financial management 222	16

Final year (Credits required: 120)**Core modules (no electives)**

Code	Description	Credits
BEL 300	Taxation 300	40
FBS 310	Financial management 310	20
FBS 320	Financial management 320	20
FRK 311	Financial accounting 311	20
FRK 321	Financial accounting 321	20
IOK 311	Internal auditing 311 (<i>offered until 2020</i>)	20
IOK 321	Internal auditing 321 (<i>offered until 2020</i>)	20
IAU 300	Internal auditing 300 (<i>offered from 2021</i>)	40

At 300-level, any **three** of the following must be taken as majors: Financial accounting (FRK), Financial management (FBS), Internal auditing (IOK/IAU) or Taxation (BEL).

BCom (Human Resource Management) (07130144)

The purpose of this programme is to equip learners with the required knowledge and practical skills to effectively manage human resources in any organisation. These include: perception (study, research); evaluation (appraisal, measuring, selection, placing, problem identification); optimal utilisation and influencing (change, training, development, motivation, negotiation and management) of human behaviour in its interaction with the environment (physical, psychological, social, organisational) as it manifests itself in the world of work.

Total credits required: 396

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	10	0
Core modules	101	123	148
Elective modules	0	0	0
Total credits required:	115	133	148

First year (Credits required: 115)**Fundamental modules (Credits required: 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 101)

Code	Description	Credits
BDO 121	Industrial and organizational psychology 121	10
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 122	Financial accounting 122	12
INF 183	Informatics 183	3
OBS 114	Business management 114	10
OBS 124	Business management 124	10
*STK 110	Statistics 110	13
*STK 120	Statistics 120	13
	or	
*STK 113	Statistics 113	11
*STK 123	Statistics 123	12

*Students who did not obtain a 5 (60-69%) for Mathematics in the NSC (or equivalent), must register for and pass STK 113 and STK 123. Credit will be granted for STK 110 on grounds of STK 113 and 123, but STK 120 must also be passed.

Second year (Credits required: 153)**Fundamental modules (Credits required: 10)**

Code	Description	Credits
FIL 251	Introduction to moral and political philosophy 251	10

Core modules (Credits required: 123)

Code	Description	Credits
BDO 221	Industrial and organisational psychology 221 (<i>offered until 2020</i>)	10
BDO 222	Industrial and organisational psychology 222 (<i>offered until 2020</i>)	16
BDO 223	Industrial and organisational psychology 223 (<i>offered until 2020</i>)	16
BDO 214	Industrial and organisational psychology (<i>offered from 2021</i>)	16
BDO 224	Industrial and organisational psychology (<i>offered from 2021</i>)	16
BDO 272	Industrial and organisational psychology 272	12
BER 210	Business law 210	16
BER 220	Business law 220	16
KOB 282	Communication management 282	5
OBS 210	Business management 210	16
OBS 220	Business management 220	16

Final year (Credits required: 148)**Core modules (no electives)**

Code	Description	Credits
ABR 311	Labour law 311	20
ABV 320	Labour relations 320	20
BDO 319	Industrial and organisational psychology 319	20
BDO 329	Industrial and organisational psychology 329	20
BDO 371	Industrial and organisational psychology 371	12
BDO 372	Industrial and organisational psychology 372	16
BDO 373	Industrial and organisational psychology 373	20
OBS 310	Business management 310	20

BCom (Informatics) Focus area Information Systems (07130173)

Informatics studies the application and use of the computer and information systems within the organisation. Our students' strength lies in their broad background of the economic and management sciences, which implies that the world of business is not unfamiliar to them. The use of information technology by organisations is growing exponentially and new, more complex and challenging applications are explored and developed on a daily basis. It has the benefit that, in addition to the work of informatics specialists being extremely interesting, there will only be a very small chance that they will ever be without work.

The Informatics specialist has the knowledge to analyse the information needs of organisations, be that businesses, government departments, non-profit organisations or any other group where information is crucial. They not only analyse the needs, but then also address those needs by designing and implementing information systems. Information systems nowadays refer to computer-based systems (including mobile applications) that store and manipulate data such that people can understand, use, interpret and make decisions based on the information.

The BCom (Informatics) programme at UP is the only degree in South Africa that is internationally accredited by the Accreditation Board for Engineering and Technology (ABET) of the USA.

Total credits required: 432

	Year-level 1 Credits	Year-level 2 Credits	Year-level 3 Credits
Fundamental modules	14	0	0
Core modules	151	115	80
Elective modules	0	32	40
Total credits required:	165	147	120

BCom (Informatics) Focus area Information Systems (07130173)

Informatics studies the application and use of the computer and information systems within the organisation. Our students' strength lies in their broad background of the economic and management sciences, which implies that the world of business is not unfamiliar to them. The use of information technology by organisations is growing exponentially and new, more complex and challenging applications are explored and developed on a daily basis. It has the benefit that, in addition to the work of informatics specialists being extremely interesting, there will only be a very small chance that they will ever be without work.

The Informatics specialist has the knowledge to analyse the information needs of organisations, be that businesses, government departments, non-profit organisations or any other group where information is crucial. They not only analyse the needs, but then also address those needs by designing and implementing information systems. Information systems nowadays refer to computer-based systems (including mobile applications) that store and manipulate data such that people can understand, use, interpret and make decisions based on the information.

The BCom (Informatics) programme at UP is the only degree in South Africa that is internationally accredited by the Accreditation Board for Engineering and Technology (ABET) of the USA.

Total credits required: 432

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	0	0
Core modules	151	115	80
Elective modules	0	32	40
Total credits required:	165	147	120

First year (Credits required: 165)**Fundamental modules (Credits required 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 121	Academic literacy for IT	6
UPO 107	Academic orientation 107	0
Core modules (Credits required: 151)		

Code	Description	Credits
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 121	Financial accounting 121*	12
or		
FRK 122	Financial accounting 122*	12
INF 112	Informatics 112	10
INF 113	Information systems 113	10
INF 154	Informatics 154	10
INF 164	Informatics 164	10
INF 171	Informatics 171	20
INF 183	Informatics 183	3
OBS 114	Business management 114	10
OBS 124	Business management 124	10
and		
STK 110	Statistics 110**	13
STC 122	Statistics 122***	13
or		
STK 113	Statistics 113**	11
STK 123	Statistics 123**	12
STK 121	Statistics 121	13
STC 122	Statistics 122	

Elective modules

BEM 120 must be included in the curriculum if Marketing Management is chosen as a major module.

Code	Description	Credits
BEM 120	Marketing Management 120	10

*FRK 122 is a terminating module. If FRK 122 is selected, a candidate will not be able to continue with Financial Accounting at second and final year level. Also note that FRK 121 may be a prerequisite for a number of other modules (e.g. BEL 200) and it is the responsibility of the candidate to ensure that he/she makes the appropriate choice between FRK 121 and 122.

** Students who obtained at least a symbol 5 (60-69%) in Mathematics in the final NSC (or equivalent) will be admitted to STK 110 and STK 120; all other students must first pass Statistics 113 and 123. STK 110 will be credited but STK 120 and STC 122 still need to be passed. **STK 120 is a terminating module and to choose Statistics as a major module up to final year level, STC 122 must be passed.**

First year (Credits required: 165)**Fundamental modules (Credits required 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 121	Academic literacy for IT	6

UPO 107	Academic orientation 107	0
Core modules (Credits required: 151)		

Code	Description	Credits
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 121	Financial accounting 121*	12
	or	
FRK 122	Financial accounting 122*	12
INF 112	Informatics 112	10
INF 113	Information systems 113	10
INF 154	Informatics 154	10
INF 164	Informatics 164	10
INF 171	Informatics 171	20
INF 183	Informatics 183	3
OBS 114	Business management 114	10
OBS 124	Business management 124	10
	and	
STK 110	Statistics 110**	13
STC 122	Statistics 122**	13
	or	
STK 113	Statistics 113**	11
STK 123	Statistics 123**	12
STK 121	Statistics 121**	13
STC 122	Statistics 122**	

Elective modules

BEM 120 must be included in the curriculum if Marketing Management is chosen as a major module.

Code	Description	Credits
BEM 120	Marketing Management 120	10

*FRK 122 is a terminating module. If FRK 122 is selected, a candidate will not be able to continue with Financial Accounting at second and final year level. Also note that FRK 121 may be a prerequisite for a number of other modules (e.g. BEL 200) and it is the responsibility of the candidate to ensure that he/she makes the appropriate choice between FRK 121 and 122.

** Students who obtained at least a symbol 5 (60-69%) in Mathematics in the final NSC (or equivalent) will be admitted to STK 110 and STK 120; all other students must first pass Statistics 113 and 123. STK 110 will be credited but STK 121 (Semester 1) and STC 122 (Semester 2) still need to be passed.

Second year (Credits required: 147)
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Core modules (Credits required: 115)

Code	Description	Credits
BER 210	Business law 210	16
BER 220	Business law 220	16
INF 214	Informatics 214	14
INF 225	Informatics 225	14
INF 261	Informatics 261	7
INF 271	Informatics 271	14
INF 272	Informatics 272	14
JCP 201	Community-based project 201	8
WST 212	Mathematical statistics 212	12

Elective modules (Credits required: 32)

Code	Description	Credits
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BEL 200	Taxation 200*	32
BEM 212	Consumer behaviour 212	16
BEM 224	Integrated brand communications 224	16
FBS 212	Financial management 212	16
FBS 222	Financial management 222	16
FRK 211	Financial accounting 211	16
FRK 221	Financial accounting 221	16
IAU 200	Internal auditing 200	32
OBS 210	Business management 210	16
OBS 220	Business management 220	16
STK 210	Statistics 210	20
STK 220	Statistics 220	20

*If Taxation is chosen as a major on final year level, Financial accounting on second year level (FRK 211 and 221) must be included in the curriculum.

Final year (Credits required: 120)

Core modules (Credits required: 80)

Code	Description	Credits
INF 315	Informatics 315	15
INF 324	Informatics 324	15
INF 354	Informatics 354	15
INF 370	Informatics 370	35

Elective modules (Credits required: 40)

Code	Description	Credits
BEL 300	Taxation 300	40
BEM 314	Marketing research 314	20
BEM 321	Marketing management 321	20
FRK 311	Financial accounting 311	20
FRK 321	Financial accounting 321	20
IOK 311	Internal auditing 311 (<i>offered until 2020</i>)	20
IOK 321	Internal auditing 321 (<i>offered until 2020</i>)	20
IAU 300	Internal auditing 300 (<i>offered from 2021</i>)	40
OBS 310	Business management 310	20
OBS 320	Business management 320	20
STK 310	Statistics 310	25
STK 353	Statistics 353	25

BCom (Investment Management) (07130205)
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The purpose of this programme is to expose students, specializing in Investment management, to the theoretical principles and practical application of investment decision-making at a high level. A multidisciplinary approach is followed and financial, economic and statistical principles are incorporated with the aim of improving the investment decision-making process. This well-structured degree has an analytic and scientific basis and is aimed at enabling students to cope with the demands of a rapidly changing local and international investment environment. Due to the specific requirements of the professional body, the credit value of the degree exceeds the recommended credit range.

Total credits required: 396

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	0	0
Core modules	111	148	85

Elective modules	0	0	40/50
Total credits required:	125	148	125/135

First year (Credits required: 125)

Fundamental modules (Credits required: 14)

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 111)

Code	Description	Credits
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 121	Financial accounting 121	12
INF 183	Informatics 183	3
INF 112	Informatics 112	10
KRG 110	Commercial law 110	10
KRG 120	Commercial law 120	10
OBS 114	Business management 114	10
STK 110	Statistics 110	13
STC 122	Statistics 122	13

Second year (Credits required: 148)
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Core modules (Credits required: 148)

Code	Description	Credits
IVM 200	Investment management 200	32
EKN 214	Economics 214	16
EKN 234	Economics 234	16
FRK 211	Financial accounting 211	16
FRK 221	Financial accounting 221	16
STK 210	Statistics 210	20
STK 220	Statistics 220	20
WST 212	Mathematical statistics 212	12

Third year (Credits required: 125)

Core modules (Credits required 85)

Code	Description	Credits
BLB 300	Investment management 300 (<i>offered until 2020</i>)	40
IVM 300	Investment management 300 (<i>offered from 2021</i>)	40
FBS 320	Financial management 320	20
STK 353	Statistics 353	25

Elective modules (Credits required: 40/50)

Code	Description	Credits
EKN 310	Economics 310	20
EKN 320	Economics 320	20
FRK 311	Financial accounting 311	20
FRK 321	Financial accounting 321	20

STK 310	Statistics 310	25
STK 320	Statistics 320	25

BCom (Law) (Code 07130152)

The purpose of this programme in law is to provide broad formative education, but it does not lead to any specific career outcomes. The student is, however, enabled to continue with the LLB degree (which is career-specific) or a BComHons. The skills acquired may be applied in either the private or public sectors.

Total credits required: 417

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	50	0	0
Core modules	101	60	62
Elective modules	0	64	80
Total credits required:	151	124	142

* **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 the modules offered at 200- and 300-level only.

** Credits will increase if Financial accounting is chosen as a major.

First year (Credits required: 120)
Fundamental modules (Credits required: 50)

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
JUR 110	Jurisprudence 110	15
JUR 120	Jurisprudence 120	15
ENG 118	English for specific purposes 118	12
or		
ENG 110	English 110	12
ENG 120	English 120	12
UPO 107	Academic orientation 107	0

Core modules (Credits required: 101)

Code	Description	Credits
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 121	Financial accounting 121*	12
or		
FRK 122	Financial accounting 122*	12
INF 183	Informatics 183	3
OBS 114	Business management 114	10
PSR 110	Law of persons 110	10
ROM 120	Roman law 120	10
STK 110	Statistics 110	13
STK 120	Statistics 120**	13
or		
STC 122	Statistics 122**	13

Elective module (if OBS is chosen as a major module)

Code	Description	Credits
OBS 124	Business management 124	10

*FRK 122 is a terminating module. If FRK 122 is selected, a candidate will not be able to continue with Financial Accounting on second and final year level. Also note that FRK 121 may be a prerequisite for a number of other modules (e.g. BEL 200) and it is the responsibility of the candidate to ensure that he/she makes the appropriate choice between FRK 121 and 122.

**STK 120 is a terminating module. If STK 120 is selected, a candidate will not be able to continue with Statistics on second and final year level.

Second year (Credits required: 135)
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Core modules (Credits required: 60)

Code	Description	Credits
ERF 222	Law of succession 222	15
KTH 220	Specific contracts 220	15
KTR 211	Law of contract 211	15
VBB 220	Consumer protection 220	15

Elective modules (Credits required: 64)

Code	Description	Credits
BEL 200	Taxation 200*	32
EKN 214	Economics 214	16
EKN 224	Economics 224	16
EKN 234	Economics 234	16
EKN 244	Economics 244	16
FBS 210	Financial management 210	16
FBS 220	Financial management 220	16
FRK 211	Financial accounting 211	16
FRK 221	Financial accounting 221	16
OBS 210	Business management 210	16
OBS 220	Business management 220	16
STK 210	Statistics 210	20
STK 220	Statistics 220	20

*If Taxation is chosen as a major on final year level, Financial accounting on second year level (FRK 211 and 221) must be included in the curriculum.

Final year (Credits required: 142)**Core modules (Credits required: 62)**

Code	Description	Credits
DLR 320	Law of delict 320	15
ISR 310	Insolvency law 310	10
ODR 320	Entrepreneurial law 320	12
SAR 310	Law of things 310	15
VHD 320	Payment methods 320	10

Elective modules (Credits required: 80)

Code	Description	Credits
BEL 300	Taxation 300	40
EKN 310	Economics 310	20
EKN 314	Economics 314	20
EKN 320	Economics 320	20
EKN 325	Economics 325	20
FBS 310	Financial management 310	20
FBS 320	Financial management 320	20
FRK 311	Financial accounting 311	20
FRK 321	Financial accounting 321	20
OBS 310	Business management 310	20
OBS 320	Business management 320	20
STK 310	Statistics 310	25
STK 320	Statistics 320	25

It is advisable for BCom (Law) students to combine Business management with Economics as a major, Financial accounting with Financial management or alternatively Financial accounting with Taxation (If Taxation is chosen as a major, Financial accounting on second year is compulsory)

Please note: Students whose aim is to obtain the LLB degree after completion of the BCom in Law degree, is advised to contact the Student Administration of the Faculty of Law for advice on which additional modules may be taken whilst doing their undergraduate study. Please note, however, that permission must be obtained from the Dean of the Faculty of Economic and Management Sciences for extra modules to be taken.

BCom (Marketing Management) (Code 07130162)

The field of specialisation in this programme has as its aim the provision of a theoretical foundation of marketing principles complemented by practical projects. On completion. the student will be able to combine practice with theory through integration and application.

Total credits required: 378

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	10	0
Core modules	101	133	120
Elective modules	0	0	0
Total credits required:	115	143	120

First year (Credits required: 112)**Fundamental modules (Credits required: 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 101)

Code	Description	Credits
BEM 120	Marketing Management 120	10
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 122	Financial accounting 122	12
INF 183	Informatics 183	3
OBS 114	Business management 114	10
OBS 124	Business management 124	10
STK 110	Statistics 110*	13
STK 120	Statistics 120*	13
or		
STK 113	Statistics 113*	11
STK 123	Statistics 123*	12

*Students who did not obtain a 5 (60-69%) for Mathematics in the final Grade 12 examination, must register for and pass STK 113 and STK 123. Credit will be granted for STK 110 on grounds of STK 113 and 123 but STK 120 must also be passed.

Second year (Credits required: 143)**Fundamental modules (Credits required: 10)**

Code	Description	Credits
OBS 214	Responsible management 214	10

Core modules (Credits required: 133)

Code	Description	Credits
BEM 212	Consumer behaviour 212	16
BEM 224	Integrated brand communications 224	16
BEM 256	Market offering 256	16
BER 210	Business law 210	16
FBS 212	Financial management 212	16
FBS 222	Financial management 222	16
KOB 281	Communication management 281	5
OBS 211	Design thinking and business innovation 211	16
OBS 220	Business management 220	16

Final year (Credits required: 120)**Core modules (No electives)**

Code	Description	Credits
BEM 314	Marketing research 314	20
BEM 315	Personal selling and account management 315	20
BEM 321	Marketing management 321	20
BEM 356	Integrated practical marketing project 356	20
OBS 320	Business management 320 <i>(Offered until 2020)</i>	20
OBS 370	Business analytics 370 <i>(Offered from 2021)</i>	20
OBS 359	International business management 359	20

BCom (Statistics and Data Science) (Code 07130263)

Statistics is an independent discipline with interdisciplinary applications. The aim of this programme is to prepare the candidates comprehensively with methods that can be applied for the gathering and interpretation of data and empirical information. Statistics lay the foundation for scientific accountable conclusions, planning and estimation. Candidates are simultaneously equipped with the necessary computer and communication skills. Statistics is commissioned by all disciplines where it can contribute towards scientific and technological progress.

Total credits required: 395

Total credits required refer to minimum as required by the programme, but can be more, depending on the choice between STK and WST and elective modules.

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	0	0
Core modules**•	88 (94)	57 (65)	75 (79)
Elective modules** •	32 (26)	72 (64)	57 (53)
Total credits required:	134	129	132

First year (Credits required: 134)**Fundamental modules (credits required: 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 88)

Code	Description	Credits
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 121	Financial accounting 121*	12
or		
FRK 122	Financial accounting 122*	12
INF 183	Informatics 183	3

OBS 114	Business management 114	10
OBS 124	Business management 124	10
STK 110	Statistics 110	13
STC 122	Statistics 122	13
	or	
WST 111	Mathematical statistics 111	16
WST 121	Mathematical statistics 121	16

Elective modules (Credits required: 32)

Code	Description	Credits
COS 122	Operating systems 122	16
COS 132	Imperative programming 132	16
FBS 112	Financial management 112	10
FBS 122	Financial management 122	10
INF 112	Informatics 112	10
INF 154	Informatics 154	10
INF 164	Informatics 164	10
INF 171	Informatics 171	20
WTW 114	Calculus 114	16
WTW 124	Mathematics 124	16

*FRK 122 is a terminating module. If FRK 122 is selected, a candidate will not be able to continue with Financial Accounting on second and final year level. . Also note that FRK 121 may be a prerequisite for a number of other modules (e.g. BEL 200) and it is the responsibility of the candidate to ensure that he/she makes the appropriate choice between FRK 121 and 122.

Second year (Credits required: 129)**Core modules (Credits required: 57)**

Code	Description	Credits
KOB 282	Communication management 282	5
STK 210	Statistics 210	20
STK 220	Statistics 220	20
WST 212	Applications in data science 212	12
	or	
WST 211	Mathematical statistics 211	24
WST 221	Mathematical statistics 221	24
WST 212	Applications in data science 212	12

Elective modules (Credits required: 72)

Code	Description	Credits
EKN 214	Economics 214	16
EKN 224	Economics 224	16
EKN 234	Economics 234	16
EKN 244	Economics 244	16
FIL 251	Introduction to moral and political philosophy 251	10
FRK 211	Financial accounting 211	16
FRK 221	Financial accounting 221	16
IAS 211	Actuarial mathematics 211	12
IAS 282	Financial mathematics 282	12
INF 214	Informatics 214	14
INF 225	Informatics 225	14
INF 261	Informatics 261	7
INF 264	Informatics 264	8
INF 271	Informatics 271	14
INF 272	Informatics 272	14

LEK 210	Introduction to agricultural economics 210	12
LEK 220	Agricultural economics 220	12
WTW 211	Linear algebra 211	12
WTW 218	Calculus 218	12
WTW 220	Analysis 220	12
WTW 221	Linear algebra 221	12
WTW 248	Vector analysis 248	12
WTW 264	Differential equations 264	12

Final year (Credits required: 132)

Core modules (Credits required: 75)

Code	Description	Credits
STK 310	Statistics 310	25
STK 320	Statistics 320	25
STK 353	The science of data analytics 353	25
or		
WST 311	Multivariate analysis 311	18
WST 312	Stochastic processes 312	18
WST 321	Time-series analysis 321	18
STK 353	The science of data analytics 353	25

Elective modules (Credits required: 57)

Code	Description	Credits
EKN 310	Economics 310	20
EKN 314	Economics 314	20
EKN 320	Economics 320	20
EKN 325	Economics 325	20
FRK 311	Financial accounting 311	20
FRK 321	Financial accounting 321	20
IAS 382	Actuarial modelling 382	20
LEK 310	Agricultural economics 310	12
LEK 320	Agricultural economics 320	16
WST 322	Actuarial statistics 322	18
WTW 310	Analysis 310	18
WTW 320	Complex analysis 320	18
WTW 354	Financial engineering 354	18
WTW 381	Algebra 381	18
WTW 382	Dynamical systems 382	18
WTW 383	Numerical analysis 383	18
WTW 389	Geometry 389	18

Example: Students in **Mathematical statistics** who also want to be trained for the **Insurance industry**, select, **amongst others**, the following modules as part of their core and elective modules at the respective year level:

WST 111	Mathematical statistics 111	16
WST 121	Mathematical statistics 121	16
WTW 114	Calculus 114	16
WTW 124	Mathematics 124	16
COS 110	Program design: Introduction 110	16
COS 132	Imperative programming 132	16
FBS 112	Financial management 112	10
FBS 122	Financial management 122	10

WST 211	Mathematical statistics 211	24
WST 221	Mathematical statistics 221	24
IAS 211	Actuarial mathematics 211	12
IAS 282	Financial mathematics 282	12
EKN 214	Economics 214	16
EKN 234	Economics 234	16
WST 311	Multivariate analysis 311	18
WST 312	Stochastic processes 312	18
WST 321	Time-series analysis 321	18
WST 322	Actuarial statistics 322	18
STK 353	The science of data analytics 353	25

Example: Students in **Mathematical statistics** who also want to be trained in the **Econometrics** field select, **amongst others**, the following modules as part of their core and elective modules at the respective year level:

WST 111	Mathematical statistics 111	16
WST 121	Mathematical statistics 121	16
WTW 114	Calculus 114	16
WTW 124	Mathematics 124	16
COS 110	Program design: Introduction 110	16
COS 132	Imperative programming 132	16
FBS 112	Financial management 112	10
FBS 122	Financial management 122	10
WST 211	Mathematical statistics 211	24
WST 221	Mathematical statistics 221	24
IAS 211	Actuarial mathematics 211	12
IAS 282	Financial mathematics 282	12
WST 311	Multivariate analysis 311	18
WST 312	Stochastic processes 312	18
WST 321	Time-series analysis 321	18
WST 322	Actuarial statistics 322	18
STK 353	The science of data analytics 353	25
EKN 310	Economics 310	20
EKN 314	Economics 314	20
EKN 320	Economics 320	20
EKN 325	Economics 325	20

BCom (Supply Chain Management) (Code 07130067)

The purpose of this programme is to equip students of Supply Chain Management with the ability to participate in functional management within an integrated supply chain. This includes the disciplines of supply management, production and operations management, warehousing, transport management and supply chain strategy.

Total credits required: 404

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	10	0
Core modules	115	149	120
Elective modules	0	0	0
Total credits required:	125	159	120

First year (Credits required: 122)**Fundamental modules (Credits required: 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 111)

Code	Description	Credits
BEM 120	Marketing Management 120	10
EKN 110	Economics 110	10
EKN 120	Economics 120	10
FRK 111	Financial accounting 111	10
FRK 122	Financial accounting 122	12
INF 183	Informatics 183	3
INF 112	Informatics 112	10
OBS 114	Business management 114	10
OBS 124	Business management 124	10
STK 110	Statistics 110*	13
STK 120	Statistics 120*	13
	or	
STK 113	Statistics 113*	11
STK 123	Statistics 123*	12

*Students who did not obtain a 5 (60-69%) for Mathematics in the final Grade 12 examination, must register for and pass STK 113 and STK 123. Credit will be granted for STK 110 on grounds of STK 113 and 123, but STK 120 must also be passed.

Second year (Credits required: 159)**Fundamental modules (Credits required: 10)**

Code	Description	Credits
OBS 214	Responsible management 214	10

Core modules (Credits required: 149)

Code	Description	Credits
BEM 212	Consumer behaviour 212	16
BER 210	Business law 210	16
BER 220	Business law 220	16
FBS 212	Financial management 212	16
FBS 222	Financial management 222	16
KOB 281	Communication management 281	5
OBS 210	Business management 210	16
OBS 216	Supply chain management 216	16
OBS 220	Business management 220	16
OBS 226	Supply chain management 226	16

Final year (Credits required: 120)**Core modules (No electives)**

Code	Description	Credits
OBS 310	Business management 310	20
OBS 316	Supply chain management 316	20
OBS 326	Supply chain management 326	20
OBS 320	Business management 320 (<i>Offered until 2020</i>)	20
OBS 330	Business management 330 (<i>Offered from 2021</i>)	20
OBS 359	International business management 359	20
OBS 369	International business management 369 (<i>Offered until 2020</i>)	20
OBS 370	Business analytics 370 (<i>Offered from 2021</i>)	20

BACHELOR OF ADMINISTRATION**BAdmin (Public Management and International Relations) 07131175**

This programme is directed towards the study of Public Administration that will equip the candidate for a career in the broad public sector. Candidates will gain in-depth knowledge of certain administrative and management practices in the South African and international public sectors. Emphasis is placed on the three spheres of government with reference to aspects such as resources management, international administration and management, policy, accountability and ethics, the role of the state, intergovernmental relations and administrative justice.

Total credits required: 389

	Year-level 1	Year-level 2	Year-level 3
	Credits	Credits	Credits
Fundamental modules	14	0	0
Core modules	82	77	100
Elective modules	12	64	40
Total	108	141	140

First year (Credits required: 108)**Fundamental modules (Credits required: 14)**

Code	Description	Credits
AIM 111	Academic information management 111	4
AIM 121	Academic information management 121	4
ALL 124	Academic literacy for Economic and Management Sciences 124	6
UPO 107	Academic orientation 107	0

Core modules (Credits required: 82)

Code	Description	Credits
EKN 110	Economics 110	10
PAD 112	Public administration 112	10
PAD 122	Public administration 122	10
PTO 101	Politics 101	24
PUF 110	Public resource management 110	18
EKN 120*	Economics 120	10
	or	
BDO 121*	Industrial and organizational psychology 121	10

* The admission requirement for EKN 120 is at least 60% in STK 113 and STK 123 or Maths Grade 12 symbol 4. If EKN is included, STK 113 and 123 must be chosen as elective modules for students who do not comply with the Gr 12 requirement. Alternatively, students who do not comply, must register for BDO 121.

Elective modules (Credits required: 12)

Code	Description	Credits
DTS 104	German for beginners 104	24
ENG 110	English 110	12
ENG 118	English for specific purposes 118	12
ENG 120	English 120	12
FRN 104	French for beginners 104	24
STK 110	Statistics 110	13
STK 120	Statistics 120	13
or		
STK 113	Statistics 113	11
STK 123	Statistics 123	12

Second year (Credits required: 141)

On second year level, students should choose either Political Science **or** International Relations.

Core modules (Credits required: 77)

Code	Description	Credits
KOB 284	Communication management 284	5
PAD 212	Public administration 212	16
PAD 222	Public administration 222	16
IPL 210	International relations 210	20
IPL 220	International relations 220	20
or		
STL 210	Political science 210	20
STL 220	Political science 220	20

Elective modules (Credits required: 64)

Code	Description	Credits
BDO 221	Industrial and organisational psychology 221 (<i>offered until 2020</i>)	10
BDO 222	Industrial and organisational psychology 222 (<i>offered until 2020</i>)	16
BDO 223	Industrial and organisational psychology 223 (<i>offered until 2020</i>)	16
BDO 214	Industrial and organisational psychology 223 (<i>offered from 2021</i>)	16
BDO 224	Industrial and organisational psychology 223 (<i>offered from 2021</i>)	16
EKN 214	Economics 214	16
EKN 234	Economics 234	16
PBL 200	Public law 200	20
OPB 210	Public management 210	22

Final year (Credits required: 140)

On THIRD YEAR level, students should choose either Political Science or International Relations.

Core modules (Credits required: 100)

Code	Description	Credits
PAD 312	Public administration 312	20
PAD 322	Public administration 322	20
IPL 310	International relations 310	30
IPL 320	International relations 320	30
or		
STL 310	Political science 310	30
STL 320	Political science 320	30

Elective modules (Credits required: 40)

Code	Description	Credits
ADR 310	Administrative law 310	10
BDO 319	Industrial and organisational psychology 319	20
BDO 329	Industrial and organisational psychology 329	20
EKN 310	Economics 310	20
EKN 320	Economics 320	20

Module content of first year modules**AIM 101 Academic information management 101**

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.

AIM 111 Academic information management 111

Module content:

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

AIM 121 Academic information management 121

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.

ALL 124 Academic literacy for Economic and Management Sciences 124

Module content:

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.

BAM 133 Basic business mathematics 133

Module content:

The number system, decimals, fractions, exponentials and order of operations. Percentages, decimals as fractions and percentages. Equations and formulas, application of equations and formulas. Ratio

and proportion. Functions, graphs, application of functions, interpreting graphs. Average rate of change, simple interest, compound interest and inflation. Present value and future value. Depreciation, annuities, sinking funds, investments, mortgages.

This module is offered at the Mamelodi Campus only for the BCom (Extended programme).

BDO 121 Industrial and organisational psychology 121

Module content:

Part 1: Introduction to industrial and organisational psychology

This module is an introduction to the history, background and subfields of Psychology with specific emphasis on Industrial and Organisational Psychology. The various schools of thought in psychology and its fields of application are discussed within a meta-theoretical context. The basic principles of how psychological knowledge, research and other methods are used to understand and handle human problems in their environments is addressed. The module ends with the biological basis of behaviour which is addressed in order to lay the foundation for part 2 – individual processes.

Part 2: Individual processes

This module is concerned with the individual processes that provide input into the work situation. The purpose of this module is to increase one's understanding of individuals and their contribution to society. Sensation and perception, which follows from the biological basis of behaviour, has a look at the senses of the individual and his perception in the work environment, considering aspects such as shape, depth, distance and colour perceptions. Learning and cognition is then discussed as behavioural processes that are integrated into work behaviour. We close off the module with a discussion on the continuous development of human beings across their lifespan within the different domains of life.

BEM 120 Marketing management 120

Module content:

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.

EKN 110 Economics 110

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.

EKN 120 Economics 120

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.

FBS 121 Financial management 121

Module content:

*Only available to BCom (Accounting Sciences) students

Introduction to management accounting, critical reasoning skills and problem solving techniques for management accounting, cost concepts, simple linear regression analysis for the purpose of forecasting future sales volumes and costs, time series analysis for the purpose of forecasting future sales volumes, Indexing for the purposes of inflating and deflating a set of financial data, introduction to financial management, the functioning of the financial markets including interest rate and foreign exchange

mechanisms, mathematics for business including time value of money calculations, and the critical reasoning skills and problem solving techniques in a financial management context. Where appropriate spread sheet applications (Excel) will be addressed as part of the respective topics being covered.

FRK 101 Financial accounting 101

Module content:

*Only available for BCom (Accounting Sciences) students

*Students who registered for FRK 101 in a previous academic year and did not pass the module, are only allowed to register for FRK 101 again if they achieved less than 35% for the module and may, with a mark below 35%, not register for FRK 100.

(This is a core module for BCom (Accounting Sciences) that forms part of the CA Programme. Modules are compiled and presented taking cognisance of the requirements of the SAICA syllabus.) An introduction to the conceptual framework (theory of accounting); basic accounting equation; value added tax; discounts, revenue; accounting procedures from source documents via subsidiary journals to general ledger and trial balance; annual financial statements of a sole proprietorship; adjustments to financial statements; control accounts; departmental accounts; bank reconciliation statements; inventory; property, plant and equipment; cash and cash equivalents; investments; borrowings; interest calculations; insurance claims; entities without profit motive; branch accounting; permanent partnerships; partnership accounts; changes in partnerships; close corporations; companies; analysis and interpretation of financial statements using a cash flow statement; manufacturing entities; tracing and correction of errors; incomplete records. A technical ability to apply the aforementioned knowledge to complex problems is essential.

FRK 111 Financial accounting 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.

FRK 121 Financial accounting 121

Module content:

Property, plant and equipment; intangible assets; inventories; liabilities; presentation of financial statements; enterprises without profit motive; partnerships; companies; close corporations; cash flow statements; analysis and interpretation of financial statements.

FRK 122 Financial accounting 122

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.

FRK 133 Financial accounting 133

Module content:

The nature and function of accounting; the development of accounting; financial position; financial performance; flow of documents; the recording process; processing of accounting data; treatment of VAT; elementary statement of comprehensive income (income statement) and statement of financial position (balance sheet) .

FRK 143 Financial accounting 143

Module content:

Accounting systems; introduction to internal control and internal control measures; bank reconciliations; control accounts; adjustments; preparing the financial statements of a sole proprietorship; the accounting framework.

INF 112 Informatics 112

Module content:

Introduction to information systems, information systems in organisations, hardware: input, processing, output, software: systems and application software, organisation of data and information,

telecommunications and networks, the Internet and Intranet. Transaction processing systems, management information systems, decision support systems, information systems in business and society, systems analysis, systems design, implementation, maintenance and revision.

INF 183 Informatics 183

Module content:

Computer processing of accounting information.

KRG 110 Commercial law 110

Module content:

General introduction.

General principles of the law of contract: introduction to the law of contract; consensus; contractual capacity; legality and physical possibility of performance; formalities; parties to the contract; conditions and related legal concepts; special terms and the interpretation of contracts; breach of contract and the termination of the contractual relationship.

KRG 120 Commercial law 120

Module content:

Law of purchase and sale; law of lease; credit agreements; law of agency; law of security.

LST 133 Language, life and study skills 133

Module content:

In this module students use different information and time management strategies, build academic vocabulary, revise basic grammar concepts and dictionary skills, examine learning styles, memory and note-taking techniques, practise academic reading skills and explore basic research and referencing techniques, learn how to use discourse markers and construct definitions, and are introduced to paragraph writing. The work is set in the context of the students' field of study.

LST 143 Language, life and study skills 143

Module content:

In this module students learn how to interpret and use visual literacy conventions. Students write more advance paragraphs, and also learn how to structure academic writing, how to refine their use of discourse markers and referencing techniques and how to structure their own academic arguments. Students' writing is expected to be rational, clear and concise. As a final assignment all aspects of the LST 133 and LST 143 modules are combined in a research assignment. In this project, students work in writing teams to produce a chapter on a career and to present an oral presentation of aspects of the chapter. The work is set in the context of the students' field of study

OBS 114 Business management 114

Module content:

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. Responsible leadership and the role of a business in society. 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).

OBS 124 Business management 124

Module content:

The nature and development of entrepreneurship; the individual entrepreneur and characteristics of South African entrepreneurs. Creativity and innovation, opportunity finding and exploitation. The business plan and resource requirements are explored. 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.

OBS 133 Business management 133

Module content:

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.

OBS 143 Business management 143

Module content:

Introduction to and overview of general management, especially regarding the five management tasks, strategic management, contemporary developments and management issues, financial management, marketing, public relations. (Note: For marketing students, marketing is replaced by financial management, and public relations by small business management.) 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).

PAD 112 Public administration 112

Module content:

This module in public administration is designed specifically to assist students in understanding the role of public administration in a modern state, the unique characteristics of public administration, the schools and approaches in public administration and introducing the various generic administrative functions. The discipline of public administration has developed rapidly and by implication, has changed and shifted its paradigm over the years. The purpose of this module is to introduce public administration to the student as a field of study that makes a significant contribution to the effective administration and management of government institutions.

PAD 122 Public administration 122

Module content:

This module in public administration will introduce the constitutional framework pertaining to public administration. The South African system of government, the functions, role and powers of the executive, legislative and judicial branches of government as well as the functioning of the three spheres of government will be discussed. The module will enable the student to understand how and where public administration is practiced.

STC 122 Statistics 122

Module content:

Inferential concepts. Experimental and observational data. Measures of association, uncertainty and goodness of fit. Sampling error and accuracy of estimation. Introduction to linear regression, reduction of variation due to regression. Conditional distributions of residuals. Simulation based inference: conditional means and prediction intervals. Bivariate data visualisation. Supporting mathematical concepts. Statistical concepts are demonstrated and interpreted through practical coding and simulation within a data science framework.

This module is also presented as a summer school for students who initially elected and passed STK 120 with a final mark of at least 60% and then decides to further their studies in statistics as well as for students who achieved a final mark of between 40% - 49% in STC 122 during semester 2.

STK 110 Statistics 110

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.

STK 113 Statistics 113

Module content:

*On its own, STK 113 and 123 will not be recognised for degree purposes, but exemption will be granted for STK 110.

Data operations and transformations:

Introductory concepts, the role of statistic, various types of data and the number system. Concepts underlying linear, quadratic, exponential, hyperbolic, logarithmic transformations of quantitative data, graphical representations, solving of equations, interpretations. Determining linear equations in practical situations. Characteristics of logarithmic functions. The relationship between the exponential and logarithmic functions in economic and related problems. Systems of equations in equilibrium. Additional concepts relating to data processing, functions and inverse functions, sigma notation, factorial notation, sequences and series, inequalities (strong, weak, absolute, conditional, double) and absolute values.

Descriptive statistics – Univariate:

Sampling and the collection of data, frequency distributions and graphical representations. Descriptive measures of location and dispersion. Introductory probability theory. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

STK 120 Statistics 120

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 credits required: 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.

STK 123 Statistics 123

Module content:

*On its own, STK 113 and 123 will not be recognized for degree purposes, but exemption will be granted for STK 110.

Optimisation techniques with economic applications: Data transformations and relationships with economic applications, operations and rules, linear, quadratic, exponential, hyperbolic and logarithmic functions; systems of equations in equilibrium, system of linear inequalities, solving of linear programming problems by means of the graphical and extreme point methods. Applications of differentiation and integration in statistic and economic related problems: the limit of a function, continuity, rate of change, the derivative of a function, differentiation rules, higher order derivatives, optimisation techniques, the area under a curve and applications of definite integrals. Probability and inference: Theoretical distributions. Sampling distributions. Estimation theory and hypothesis testing of sampling averages and proportions (one-sample and two-sample cases). Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques. The weekly one hour practical is presented during the last seven weeks of the semester.

STK 133 Statistics 133

Module content:

Data operations and transformations: Introductory concepts, the role of statistics, various types of data and the number system. Concepts underlying hyperbolic transformations of quantitative data. The relationship between the exponential and logarithmic functions in economic and related problems. Systems of equations in equilibrium. Additional concepts relating to data processing, factorial notation and absolute values.

Descriptive statistics – Univariate: Sampling and the collection of data, frequency distributions and graphical representations. Descriptive measures of location and dispersion. Correlation and regression:

Least squares line, single log, double log and inverse transformations. Report writing and presentation. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

STK 143 Statistics 143

Module content:

Optimisation techniques with economic applications: system of linear inequalities, solving of linear programming problems by means of the graphical and extreme point methods. Applications of differentiation and integration in statistic and economic related problems: the limit of a function, continuity, rate of change, the derivative of a function, differentiation rules, higher order derivatives, optimisation techniques, the area under a curve and applications of definite and indefinite integrals in Economic and Probability applications. Introduction to probability theory. Probability and inference: Theoretical distributions. Sampling distributions. Estimation theory and hypothesis testing of sampling averages and proportions (one-sample and two-sample cases). Non Parametric tests. Report writing and presentation. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

WST 111 Mathematical statistics 111

Module content:

Characterisation of a set of measurements: Graphical and numerical methods. Random sampling. Probability theory. Discrete and continuous random variables. Probability distributions. Generating functions and moments.

WST 121 Mathematical statistics 121

Module content:

Sampling distributions and the central limit theorem. Statistical inference: Point and interval estimation. Hypothesis testing with applications in one and two-sample cases. Introductory methods for: Linear regression and correlation, analysis of variance, categorical data analysis and non-parametric statistics. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

WST 133 Mathematical statistics 133

Module content:

Descriptive statistics – Univariate:

The role of Statistics, various types of data. Sampling, probability and non-probability sampling techniques and the collection of data. Frequency, relative and cumulative distributions and graphical representations. Additional concepts relating to data processing: sigma notation, factorial notation. Descriptive measures of location, dispersion and symmetry. Exploratory data analysis.

Probability:

Introductory probability theory and applications. Set theory and probability laws. Introduction to random variables. Assigning probabilities, probability distributions, expected value and variance in general. Specific discrete probability distributions (Uniform, Binomial). Report writing and presentation. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

WST 143 Mathematical statistics 143

Module content:

Probability and inference:

Probability theory and theoretical distributions for continuous random variables (Uniform, Normal and t).

Sampling distributions (means and proportions). Estimation theory and hypothesis testing of sampling averages and proportions (one- and two-sample cases).

Optimisation techniques with economic applications:

Applications of differentiation in statistic and economic related problems. Integration. Applications of integration in statistic and economic related problems. Systems of equations in equilibrium. The area under a curve and applications of definite integrals in Statistics and Economics. Report writing and presentation. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

WTW 114 Calculus 114

Module content:

*This module serves as preparation for students majoring in Mathematics (including all students who intend to enrol for WTW 218 and WTW 220). Students will not be credited for more than one of the following modules for their degree: WTW 114, WTW 158, WTW 134, WTW 165.

Functions, limits and continuity. Differential calculus of single variable functions, rate of change, graph sketching, applications. The mean value theorem, the rule of L'Hospital. Definite and indefinite integrals, evaluating definite integrals using anti-derivatives, the substitution rule.

WTW 124 Mathematics 124

Module content:

*Students will not be credited for more than one of the following modules for their degree:

WTW 124, WTW 146, WTW 148 and WTW 164. This module serves as preparation for students majoring in Mathematics (including all students who intend to enrol for WTW 218, WTW 211 and WTW 220).

The vector space R^n , vector algebra with applications to lines and planes, matrix algebra, systems of linear equations, determinants. Complex numbers and factorisation of polynomials. Integration techniques and applications of integration. The formal definition of a limit. The fundamental theorem of Calculus and applications. Vector functions, polar curves and quadratic curves.

WTW 133 Precalculus 133

Module content:

Real numbers, elementary set notation, exponents and radicals. Algebraic expressions, fractional expressions, linear and quadratic equations, inequalities. Coordinate geometry: lines, circles. Functions: definition, notation, piecewise defined functions, domain and range, graphs, transformations of functions, symmetry, even and odd functions, combining functions, one-to-one functions and inverses, polynomial functions and zeros. Sequences, summation notation, arithmetic, geometric sequences, infinite geometric series, annuities and instalments. Degrees and radians, unit circle, trigonometric functions, fundamental identities, trigonometric graphs, trigonometric identities, double-angle, half-angle formulae, trigonometric equations, applications.

WTW 134 Mathematics 134

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.

WTW 143 Calculus 143

Module content:

Functions: exponential and logarithmic functions, natural exponential and logarithmic functions, exponential and logarithmic laws, exponential and logarithmic equations, compound interest. Limits: concept of a limit, finding limits numerically and graphically, finding limits algebraically, limit laws without proofs, squeeze theorem without proof, one-sided limits, infinite limits, limits at infinity, vertical, horizontal and slant asymptotes, substitution rule, continuity, laws for continuity without proofs. Differentiation: average and instantaneous change, definition of derivative, differentiation rules without proofs, derivatives of polynomials, chain rule for differentiation, derivatives of trigonometric, exponential and logarithmic functions, applications of differentiation: extreme values, critical numbers, monotone functions, first derivative test, optimisation.

WTW 146 Linear algebra 146

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.

WTW 148 Calculus 148

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.

Prerequisites for modules

The first column lists the module codes of the different modules presented in the Faculty. When a module code in the second column ends with the symbol GS, it indicates that a combined mark (the average of the module/semester/year mark plus the examination mark) of at least 40% must be obtained in that module before admission to the module in the first column can be obtained. A module listed in the second column without these letters must, however, be passed before admission to the module in the first column can be obtained.

BDO 219	BDO 110 GS, 120 GS Only available to BNur students
BDO 221	BDO 111 GS. May not be included in the same curriculum as SLK 110/120
BDO 222	BDO 111 GS, BDO 221 GS
BDO 223	BDO 111 GS, BDO 221 GS
BDO 229	BDO 219 GS
BDO 272	Only available for BCom (Human Resource Management) students.
BDO 319	BDO 110, 120; BDO 219 GS, BDO 229 GS (except for Business Management students).
BDO 329	BDO 319 GS
BDO 371	Only available to BCom (Human Resource Management) students.
BDO 372	Only available for BCom (Human Resource Management) students.
BDO 373	RES 210 GS; Only available for BCom (Human Resource Management) students.
BEL 200	FRK 111 and FRK 121 or FRK 100 or FRK 101. Only available to BCom (Accounting Sciences, Financial Sciences, Informatics, Investment Management and Law) students.
BEL 300	BEL 200 and FRK 221 or FRK 201
BEM 212	BEM 120 GS
BEM 224	BEM 120 GS
BEM 256	BEM 120 GS; Only for BCom (Marketing Management) students
BEM 314	BEM 120 and STK 110 GS
BEM 315	BEM 120; Only for BCom (Marketing Management) students
BEM 321	BEM 120
BEM 356	BEM 120, BEM 256; Only for BCom (Marketing management) students
BLB 200	FRK 111, FRK 121 or FRK 100 or FRK 101; STK 110, STK 120, EKN 110, EKN 120 and only available to BCom (Investment Management) students.
BLB 300	BLB 200 and only available to BCom (Investment Management) students
BME 120	At least 4 (50-59%) in Mathematics in the Grade 12 examination, or at least 50% in both Statistics 113, 123
BME 210	BME 120
BSR 410	FBS 110

EKN 120	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
EKN 214	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.
EKN 224	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.
EKN 234	EKN 214 and STK 120/121 or WST 121 OR concurrently registered for STK 120/121 or WST 121.
EKN 244	EKN 224 and STK 120/121 or WST 121 OR concurrently registered for STK 120/121 or WST 121.
EKN 310	EKN 214, EKN 234 or EKN 224, EKN 244
EKN 314	EKN 234, EKN 244
EKN 320	EKN 310 GS
EKN 325	EKN 214, EKN 234
FBS 112	At least 6 (70-79%) in Mathematics in the Grade 12 examination or WTW 133 (60%), WTW 143 (60%), WST 133 (60%) and WST 143 (60%).
FBS 121	Only available to BCom (Accounting Sciences) students
FBS 122	FBS 112 or WST 121 and 07130261 or 07130262 or 02133388 or 02133273 or 02133395 or 02133274 or 02130007 or 02130016
FBS 200	FRK 100 or FRK 101 and FBS 121 GS
FBS 210	BCom Financial Sciences, Investment Management and Law: FRK 111 and FRK 121 (or FRK 100 or 101),STK 110,120 or FBS 121, and simultaneously registered for FRK 211;BSc Construction Management, Quantity Surveying and Real Estate: FBS110,120, STK110 and STK120
FBS 212	FRK 111 and 121/122 or FRK 100 or FRK 101
FBS 220	FRK 211 GS, STK 110, STK 120
FBS 222	FRK 111 and 122/121 or FRK 100 or FRK 101
FBS 300	FBS 200 and only available to BCom (Accounting Sciences) students
FBS 310	Admission to the examination in FBS 220; FRK 211 and FRK 221. Only available to 07130202, 07130203, 07130204, 07130071 and 07130151
FBS 320	FBS 210 or BLB 200. Only available to 07130202, 07130203, 07130204, 07130071 and 07130151
FRK 100	Only candidates who achieved an acceptable result in the compulsory accounting proficiency test may register for this module.
FRK 101	Candidates who did not take Grade 12 Accounting will be admitted to Financial accounting 101 (FRK 101) irrevocably.
FRK 121	FRK 111 GS
FRK 122	FRK 111 GS or FRK 133, FRK 143
FRK 133	Only available to the BCom (Extended Programme)
FRK 143	Only available to the BCom (Extended Programme)
FRK 201	FRK 100 or FRK 101; Only available to BCom (Accounting Sciences) students
FRK 211	FRK 111 and FRK 121 or FRK 100/101
FRK 221	FRK 211 GS
FRK 300	FRK 201
FRK 311	FRK 211, 221 and INF 281
FRK 321	FRK 311 GS and INF 281

IAU 200	FRK 111 and FRK 121
INF 112	A candidate must have passed Mathematics with at least 4 (50-59%) in the Grade 12 examination; or STK 113 60%, STK 123 60% or STK 110
INF 154	A candidate must have passed Mathematics with at least 4 (50-59%) in the Grade 12 examination
INF 164	INF 154; A candidate must have passed Mathematics with at least 4 (50-59%) in the Grade 12 examination; AIM 101 or AIM 102 or AIM 111 and AIM 121
INF 171	A candidate must have passed Mathematics with at least 4 (50-59%) in the Grade 12 examination
INF 214	AIM 101 or AIM 111 and AIM 121
INF 225	INF 112; AIM 101 or AIM 102 or AIM 111 and AIM 121
INF 261	INF 214
INF 264	INF 112, AIM 101 or AIM 102 or AIM 111 and AIM 121
INF 271	AIM 101 or AIM 102 or AIM 111 and AIM 121, INF 164, INF 171
INF 272	AIM 101 or AIM 102 or AIM 111 and AIM 121, INF 164 and INF 171
INF 315	INF 261, INF 225, INF 271 and INF 272
INF 324	INF 261, INF 225, INF 271 and INF 272
INF 354	INF 261, INF 225, INF 271 and INF 272
INF 370	INF 261, INF 225, INF 271 and INF 272
INF 413	INF 315 and INF 324.
INF 415	INF 315 and INF 324.
INF 485	INF 315 and INF 324.
INF 487	INF 315 and INF 324.
INF 490	INF 315 and INF 324.
INF 491	INF 315 and INF 324.
IOK 211	FRK 111 and FRK 121
IOK 221	IOK 211 GS
IOK 311	IOK 211 and IOK 221
IOK 321	IOK 311 GS
IVM 200	FRK 111, FRK 121 or FRK 100 or FRK 101; STK 110, STK 120 or STC 122, EKN 110, EKN 120. Only available for BCom (Investment Management)
KOB 320	KOB 210 or KOB 220 with a GS in the other, KOB 310 GS
OBS 114	May not be included in the same curriculum as OBS 155
OBS 124	Admission to the examination in OBS 114
OBS 133	Only available to BCom (Extended Programme) students
OBS 143	Only available to BCom (Extended Programme) students
OBS 210	OBS 114 or 124 with admission to the examination in the other
OBS 213	OBS 114 or 124 with admission to the examination in the other. Only available to BCom (Entrepreneurship) students
OBS 216	OBS 114 or 124 with admission to the examination in the other. Only available to BCom (Supply Chain Management) students
OBS 220	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.
OBS 226	OBS 114 or 124 with admission to the examination in the other. Only available to BCom (Supply Chain Management) students
OBS 310	OBS 114 or 124 with admission to the examination in the other
OBS 316	OBS 114, OBS 124 with admission to the examination in OBS 216 and OBS 226. Only available to BCom (Option: Supply Chain Management) students
OBS 320	OBS 310
OBS 326	OBS 316 GS

OBS 359	OBS 114 or OBS 124 with admission to the examination in the other
OBS 369	Admission to the exam in OBS 359
ODT 200	FRK 100 or FRK 101
ODT 300	ODT 200
OPB 210	Only available to BAdmin in Public Management (Option: Public Administration) students.
PAD 122	PAD 112 GS
PAD 212	PAD 112 or PAD 122 with a GS in the other
PAD 222	PAD 212 GS
PAD 312	PAD 112, PAD 122, PAD 212 or PAD 222 with a GS in the other
PAD 322	PAD 312 GS
PBP 320	Only available to BAdmin in Public Management (Option: Public Administration) students.
PUF 110	No prerequisites.
STC 122	At least a 60% in STK 110 or an average of 60% for either (1) WST 133, WST 143, WST 153; (2) STK 113, STK 123, STK 121; (3) STK 133, STK 134, STK121; (4) WST 133, WST 143, STK 121 (An aegrotat exam is available to students who obtained 50%-59%)
STK 110	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
STK 120	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
STK 123	STK 113 GS
STK 133	At least 3 (40-49%) in Mathematics in the Grade 12 examination; BCom non-numeric stream students must take BAM 133 concurrently.
STK 161	STK 110 GS or both STK 113 GS and STK 123 GS
STK 162	STK 110 GS or both STK 113 GS and STK 123 GS
STK 210	STK 110, STK 120
STK 220	STK 210 GS
STK 310	STK 210, STK 220
STK 320	WST 211, WST 221 WTW 211 GS and WTW 218 GS OR STK 210, STK 220.
STK 353	STK 210, STK 220 or WST 211, WST 221
TBE 320	TBE 210 GS
WST 111	At least 5 (60-69%) in Mathematics in the Grade 12 examination
WST 121	WST 111 GS or WST 133, 143 and 153
WST 133	At least 4 (50-59%) in Mathematics in the Grade 12 examination; BSc and BCom numeric stream students must take WTW 133 concurrently.
WST 143	BSc and BCom numeric students: WST 133 and WTW 133 and must be taken concurrently with WTW 143.
WST 153	WST 133, WST143 and WTW 143. To be taken concurrently with WTW 153.
WST 211	WST 111, WST 121, WTW 114 GS and WTW 124 GS
WST 212	WST 111, WST 121 or STK 110, STC 122
WST 221	WST 211 GS
WST 311	WST 211, WST 221, WTW 211 GS and WTW 218 GS
WST 312	WST 211, WST 221, WTW 211 GS and WTW 218 GS
WST 321	WST 211, WST 221, WTW 211 GS and WTW 218 GS
WST 322	WST 211, WST 221, WTW 211 GS and WTW 218 GS