University of Pretoria Yearbook 2016

BSc Information Technology Information and Knowledge Systems (12133211)

Duration of study	3 years
Total credits	475

Admission requirements

- In order to register NSC/IEB/Cambridge candidates must comply with the minimum requirements for degree studies as well as with the minimum requirements for the relevant study programme.
- Life Orientation is excluded when calculating the APS.
- Grade 11 results are used in the provisional admission of prospective students.
- A valid National Senior Certificate (NSC) with admission to degree studies is required.
- Minimum subject and achievement requirements, as set out below, are required. On first-year level a student has a choice between Afrikaans and English as language medium. In certain cases, tuition may be presented in English only, for example in electives, where the lecturer may not speak Afrikaans or in cases where it is not economically or practically viable.
- Provisional admission to the four-year programme in the School of Engineering is only guaranteed if a prospective student complies with ALL the requirements below.

Note

Candidates who do not comply with the minimum requirements, set out above, but who have obtained a minimum APS of 30, an achievement level of 5 for English or Afrikaans, 6 for Mathematics and 5 for Physical Science, will be considered for provisional admission to either the four-year programme or the ENGAGE programme based on the results of the compulsory NBT.

Admission to ENGAGE in the School of Engineering will be determined by the results of the NBT, NSC results, an achievement level of 5 in Mathematics and 4 in Physical Science, as well as an achievement level of 4 in Afrikaans or English, together with an APS of 25.

Students may apply directly to be considered for the ENGAGE programme.

Minimum requirments for 2016								
Achievement level								
Afrikaans or English				**Wiskunde**				**APS**
NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	

4	3	D	D	5	3	C	C	30 (26-29 admission based on the NBT)

Additional requirements

Please note that additional admission requirements may result from certain elective groups.

Candidates who do not comply with these requirements are advised to register for BSc IT (Four-year programme) if they comply with the admission requirements for the programme.

Promotion to next study year

General

a. A student must pass all the modules of the first year of study, before he or she is permitted to register for any module of the third year of study. Module prerequisites remain applicable. Exceptions to this rule will be considered by the relevant Head of Department and the Dean.
b. A student must pass all the modules of the second year of study, before he or she is permitted to register for any module of the fourth year of study (in the case of a four-year degree). Module prerequisites remain applicable. Exceptions to this rule will be considered by the relevant Head of Department and the Dean.
c. A new first-year student, who has failed in all the prescribed modules of the programme at the end of the first semester, will not be permitted to proceed to the second semester in the School of Information Technology.
d. A student who has not passed at least 70% of the credits of the current year of study after the November examinations will not be re-admitted to the School of Information Technology.
e. Students who fail a module for a second time, forfeit the privilege of registering for any modules of an advanced year of study.
f. Students whose academic progress is not acceptable can be suspended from further studies.

Procedure: Exclusion from and re-admission to further studies in the School of Information Technology

a. A student who is excluded from further studies in terms of the stipulations of the abovementioned regulations will be notified in writing by the Dean or admissions committee of the School of Information Technology at the end of the relevant semester.
b. A student who has been excluded from further studies may apply in writing to the admissions committee of the School of Information Technology on level 6 in the Engineering building I for re-admission.
c. Written applications for re-admission to the second semester must be submitted at least 7 days before lectures resume for the second semester.
d. Written applications for re-admission to the new academic year must be submitted before 12 January.
e. Late applications will be accepted only in exceptional circumstances after approval by the Dean.
f. Should a student not be re-admitted to further studies by the admissions committee of the School of Information Technology, he/she will be informed in writing.
g. A student who is not re-admitted by the admissions committee of the School of Information Technology has the right to appeal to the Appeals Committee: Admissions in the Administration building, room 3-13.
h. Any decision taken by the Appeals Committee: Admissions is final.
i. Should the student be re-admitted by the Admissions Committee, strict conditions will be set which the

student must comply with in order to proceed with his/her studies.

j. A student, who is repeating his or her year, may be permitted by the Dean, on recommendation of the relevant head(s) of department, to register for modules of the following year of study in addition to the outstanding modules he or she has failed, providing that he or she complies with the prerequisites of these modules and no timetable clashes occur. In no semester may the total credits for which a student registers, exceed the normal number of credits per semester by more than 16 credits, except with special permission from the relevant Head of Department.

Pass with distinction

A degree (undergraduate) in the School of IT is conferred with distinction on a student who did not repeat any module of his/her final year, obtained a weighted average of at least 75% in all the prescribed modules for the final year, provided that a subminimum of 65% is obtained in each of these modules and provided that the degree is completed in the prescribed minimum period of time. Ad hoc cases will be considered by the Dean, in consultation with the head of the relevant department.

Curriculum: Year 1

Minimum credits: 170

Fundamental modules

Academic information management 101 (AIM 101) - Credits: 6.00
Academic literacy for Information Technology 121 (ALL 121) - Credits: 6.00
Academic orientation 112 (UPO 112) - Credits: 0.00

Core modules

Program design: Introduction 110 (COS 110) - Credits: 16.00
Software modelling 121 (COS 121) - Credits: 16.00
Introduction to computer science 151 (COS 151) - Credits: 8.00
Calculus 114 (WTW 114) - Credits: 16.00
Discrete structures 115 (WTW 115) - Credits: 8.00
Mathematics 134 (WTW 134) - Credits: 16.00
Imperative programming 132 (COS 132) - Credits: 16.00

Elective modules

Principles of marketing management 110 (BEM 110) - Credits: 10.00
Biometry 120 (BME 120) - Credits: 16.00
Plant biology 161 (BOT 161) - Credits: 8.00
Philosophy 110 (FIL 110) - Credits: 12.00
Philosophy 120 (FIL 120) - Credits: 12.00
Financial accounting 111 (FRK 111) - Credits: 10.00
Aspects of human geography 156 (GGY 156) - Credits: 8.00
Southern African geomorphology 166 (GGY 166) - Credits: 8.00
Cartography 110 (GMC 110) - Credits: 12.00
Introductory genetics 161 (GTS 161) - Credits: 8.00
Introduction to history of music 110 (IMG 110) - Credits: 10.00
Informatics 154 (INF 154) - Credits: 10.00
Informatics 164 (INF 164) - Credits: 10.00
Commercial law 110 (KRG 110) - Credits: 10.00
Commercial law 120 (KRG 120) - Credits: 10.00
Criminology 110 (KRM 110) - Credits: 12.00
Criminology 120 (KRM 120) - Credits: 12.00
Introduction to microbiology 161 (MBY 161) - Credits: 8.00
Molecular and cell biology 111 (MLB 111) - Credits: 16.00
Music education 170 (MPE 170) - Credits: 10.00
Business management 114 (OBS 114) - Credits: 10.00
Business management 124 (OBS 124) - Credits: 10.00
Psychology 110 (SLK 110) - Credits: 12.00
Psychology 120 (SLK 120) - Credits: 12.00
Statistics 110 (STK 110) - Credits: 13.00
Statistics 120 (STK 120) - Credits: 13.00
Mathematical statistics 111 (WST 111) - Credits: 16.00
Mathematical statistics 121 (WST 121) - Credits: 16.00

Numerical analysis 123 (WTW 123) - Credits: 8.00
Financial accounting 122 (FRK 122) - Credits: 12.00
Marketing applications 122 (BEM 122) - Credits: 10.00
Introduction to environmental sciences 101 (ENV 101) - Credits: 8.00
Informatics 171 (INF 171) - Credits: 20.00
Mathematics 124 (WTW 124) - Credits: 16.00

Curriculum: Year 2

Minimum credits: 170

Fundamental modules

Community-based project 202 (JCP 202) - Credits: 8.00

Core modules

Data structures and algorithms 212 (COS 212) - Credits: 16.00
Netcentric computer systems 216 (COS 216) - Credits: 16.00
Operating systems 222 (COS 222) - Credits: 16.00
Concurrent systems 226 (COS 226) - Credits: 16.00
Computer organisation and architecture 284 (COS 284) - Credits: 16.00
Informatics 214 (INF 214) - Credits: 14.00
Information science 240 (INL 240) - Credits: 20.00
Discrete structures 285 (WTW 285) - Credits: 12.00

Elective modules

Engineering statistics 220 (BES 220) - Credits: 8.00
Philosophy 210 (FIL 210) - Credits: 20.00
Philosophy 220 (FIL 220) - Credits: 20.00
Introductory geographic information systems 283 (GGY 283) - Credits: 12.00
Geographic data analysis 220 (GIS 220) - Credits: 12.00
Remote sensing 220 (GMA 220) - Credits: 16.00
Molecular genetics 251 (GTS 251) - Credits: 12.00
Genetic diversity and evolution 261 (GTS 261) - Credits: 12.00
Introduction to history of music 210 (IMG 210) - Credits: 15.00
Multimedia 210 (IMY 210) - Credits: 16.00
Multimedia 220 (IMY 220) - Credits: 16.00
Informatics 261 (INF 261) - Credits: 7.00
Informatics 271 (INF 271) - Credits: 14.00
Commercial law 200 (KRG 200) - Credits: 24.00
Criminology 210 (KRM 210) - Credits: 20.00
Criminology 220 (KRM 220) - Credits: 20.00
Bacteriology 251 (MBY 251) - Credits: 12.00
Mycology 261 (MBY 261) - Credits: 12.00
Music technology 302 (MCS 302) - Credits: 15.00
Business management 210 (OBS 210) - Credits: 16.00
Business management 220 (OBS 220) - Credits: 16.00
Psychology 210 (SLK 210) - Credits: 20.00
Psychology 220 (SLK 220) - Credits: 20.00
Mathematical statistics 211 (WST 211) - Credits: 24.00
Mathematical statistics 221 (WST 221) - Credits: 24.00
Linear algebra 211 (WTW 211) - Credits: 12.00
Calculus 218 (WTW 218) - Credits: 12.00
Professional ethics 211 (BPE 211) - Credits: 6.00

Curriculum: Final year

Minimum credits: 144

Core modules

Software engineering 301 (COS 301) - Credits: 27.00
Computer networks 332 (COS 332) - Credits: 18.00
Programming languages 333 (COS 333) - Credits: 18.00
Multimedia 310 (IMY 310) - Credits: 30.00
Computer security and ethics 330 (COS 330) - Credits: 18.00

Elective modules

Artificial intelligence 314 (COS 314) - Credits: 18.00
Database systems 326 (COS 326) - Credits: 18.00
Computer graphics 344 (COS 344) - Credits: 18.00
Philosophy 310 (FIL 310) - Credits: 30.00
Philosophy 320 (FIL 320) - Credits: 30.00
Geographic information systems 310 (GIS 310) - Credits: 24.00
Spatial analysis 320 (GIS 320) - Credits: 24.00
Informatics 354 (INF 354) - Credits: 15.00
Criminology 310 (KRM 310) - Credits: 30.00
Criminology 320 (KRM 320) - Credits: 30.00
Information and communications technology law 420 (KUB 420) - Credits: 10.00
Capita selecta: Music 402 (MCS 402) - Credits: 40.00
Business management 310 (OBS 310) - Credits: 20.00
Business management 320 (OBS 320) - Credits: 20.00
International business management 359 (OBS 359) - Credits: 20.00
International business management 369 (OBS 369) - Credits: 20.00
Psychology 310 (SLK 310) - Credits: 30.00
Psychology 320 (SLK 320) - Credits: 30.00
Financial engineering 354 (WTW 354) - Credits: 18.00
Geometry 389 (WTW 389) - Credits: 18.00
Industrial analysis 313 (BAN 313) - Credits: 8.00
Operational research 312 (BOZ 312) - Credits: 16.00
Genome evolution and phylogenetics 354 (GTS 354) - Credits: 18.00
Population and evolutionary genetics 367 (GTS 367) - Credits: 18.00
Plant genetics and crop biotechnology 361 (BTC 361) - Credits: 18.00

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