

# University of Pretoria Yearbook 2016

## BIT Information Technology (02130082)

**Duration of study** 4 years

**Total credits** 683

### 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 requirements for 2016								
Achievement level								
Afrikaans or English				Mathematics				APS
NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	
5	3	C	C	5	3	C	C	30 (26-29 admission based on the NBT)

- Should a candidate obtain an APS of 26 to 29 consideration for admission will be based on the results of the



NBT provided the quotas regarding student numbers have not been reached.

## Other programme-specific information

Note that a student who wishes to continue with an MSc(Computer Science) or MCom(Informatics) or MIS(Information Science) should take four of the five honours modules from that specific department in their fourth year of study.

## Promotion to next study year

Also consult the G Regulations.

- (i) A student is promoted to the following year of study after obtaining the required credits as mentioned below:
  - Second year of study after obtaining at least 70% of the credits of the first year of study.
  - Third year of study after obtaining at least 70% of the credits of the second year of study.
  - Fourth year of study after obtaining at least 70% of credits of the third year of study.
- (ii) The degree is conferred if all the prescribed modules have been passed.



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## Curriculum: Year 1

**Minimum credits: 176**

### 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

Philosophy 120 (FIL 120) - Credits: 12.00

Financial accounting 111 (FRK 111) - Credits: 10.00

Information science 110 (INL 110) - Credits: 12.00

Business management 114 (OBS 114) - Credits: 10.00

Calculus 114 (WTW 114) - Credits: 16.00

Discrete structures 115 (WTW 115) - Credits: 8.00

Imperative programming 132 (COS 132) - Credits: 16.00

Financial accounting 122 (FRK 122) - Credits: 12.00

Informatics 171 (INF 171) - Credits: 20.00

Linear algebra 146 (WTW 146) - Credits: 8.00



## Curriculum: Year 2

**Minimum credits: 170**

### 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

Computer organisation and architecture 284 (COS 284) - Credits: 16.00

Multimedia 210 (IMY 210) - Credits: 16.00

Multimedia 220 (IMY 220) - Credits: 16.00

Informatics 214 (INF 214) - Credits: 14.00

Informatics 271 (INF 271) - Credits: 14.00

Informatics 272 (INF 272) - Credits: 14.00

Information science 210 (INL 210) - Credits: 20.00

Information science 240 (INL 240) - Credits: 20.00

Discrete structures 285 (WTW 285) - Credits: 12.00



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## Curriculum: Year 3

**Minimum credits: 186**

### Core modules

Software engineering 301 (COS 301) - Credits: 27.00

Artificial intelligence 314 (COS 314) - Credits: 18.00

Database systems 326 (COS 326) - Credits: 18.00

Computer networks 332 (COS 332) - Credits: 18.00

Programming languages 333 (COS 333) - Credits: 18.00

Compiler construction 341 (COS 341) - Credits: 18.00

Computer graphics 344 (COS 344) - Credits: 18.00

Multimedia: Project 300 (IMY 300) - Credits: 45.00

Informatics 315 (INF 315) - Credits: 15.00

Informatics 324 (INF 324) - Credits: 15.00

Informatics 354 (INF 354) - Credits: 15.00

Informatics 370 (INF 370) - Credits: 30.00

Information science: Information organisation 310 (INL 310) - Credits: 30.00

Information science: Information and knowledge management 320 (INL 320) - Credits: 30.00

Computer security and ethics 330 (COS 330) - Credits: 18.00



## Curriculum: Final year

**Minimum credits: 151**

### Core modules

- Business law 310 (BER 310) - Credits: 16.00
- Community-based project 202 (JCP 202) - Credits: 8.00
- Industry-based learning 700 (SIT 700) - Credits: 52.00

### Elective modules

- Multimedia trends 771 (IMY 771) - Credits: 15.00
- Hypermedia and mark-up languages 772 (IMY 772) - Credits: 15.00
- Multimedia technology 773 (IMY 773) - Credits: 15.00
- Animation theory and practice 777 (IMY 777) - Credits: 15.00
- Human-computer interaction 779 (IMY 779) - Credits: 15.00
- Capita selecta 713 (INF 713) - Credits: 15.00
- Research methodology 714 (INF 714) - Credits: 15.00
- Enterprise architecture 715 (INF 715) - Credits: 15.00
- Research report 780 (INF 780) - Credits: 30.00
- Advanced database systems 785 (INF 785) - Credits: 15.00
- Managing projects and end-users 787 (INF 787) - Credits: 15.00
- Information systems development 788 (INF 788) - Credits: 15.00
- Capita selecta 790 (INF 790) - Credits: 15.00
- Knowledge acquisition and sharing 791 (INF 791) - Credits: 15.00
- Research methodology 711 (INY 711) - Credits: 15.00
- Information ethics 715 (INY 715) - Credits: 15.00
- Information and knowledge management (II) 716 (INY 716) - Credits: 15.00
- Information society 722 (INY 722) - Credits: 15.00
- Competitive intelligence (I) 726 (INY 726) - Credits: 15.00
- Competitive intelligence (II) 727 (INY 727) - Credits: 15.00
- Information communication 730 (INY 730) - Credits: 15.00
- Capita selecta 716 (INF 716) - Credits: 15.00
- Computer and information security (I) 720 (COS 720) - Credits: 15.00
- Software engineering (I) 730 (COS 730) - Credits: 15.00
- Software engineering (II) 731 (COS 731) - Credits: 15.00
- Formal aspects of computing (I) 740 (COS 740) - Credits: 15.00
- Formal aspects of computing (II) 741 (COS 741) - Credits: 15.00
- Educational software development 750 (COS 750) - Credits: 15.00
- Data mining 781 (COS 781) - Credits: 15.00
- Generic programming 782 (COS 782) - Credits: 15.00
- Digital forensics and investigations 783 (COS 783) - Credits: 15.00
- Computer networks 784 (COS 784) - Credits: 15.00
- Parallel and distributed computing 786 (COS 786) - Credits: 15.00
- Spatial databases 787 (COS 787) - Credits: 15.00



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 each student to familiarise himself or herself 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.