



---

# University of Pretoria Yearbook 2018

---

## MIT Big Data Science (12254017)

**Minimum duration of study** 2 years

**Total credits** 180

### Programme information

This degree programme is presented in English only.

Also consult G Regulations G.30 to G.54

The curriculum is determined in consultation with the programme organiser.

A student will have to apply to the Dean of the Faculty of Engineering, Built Environment and Information Technology if he/she requires more than three years to complete the degree.

### Admission requirements

- i. Subject to the stipulations of Gen. Reg. G.1.3, G.30 and G.62, an appropriate honours or bachelor's degree is a requirement for admission.
- ii. Selection of candidates will take place.
- iii. The result of the selection is final and no correspondence will be entered into.
- iv. A minimum pass mark of 65% for the previous degree AND
- v. Successful completion of higher education modules, or other modules with similar content, as part of the previous degree in:

- Statistics,
- Calculus I,
- Linear Algebra I,
- Programming,
- Database systems, and
- Research methods; AND

- i. Success in the selection process based on:

- previous education;
- passing an English test; and
- passing a proficiency test in Databases, Programming, Mathematics and Statistics.

### Other programme-specific information

#### **Discontinuation of studies**

The Dean may, on the recommendation of the admissions committee, cancel the studies of a student who fails more than one module. A module may only be repeated once.

#### **Deregistration of modules**



Deregistration of modules is only allowed before the early deadline.

## Examinations and pass requirements

A minimum semester mark of 40% is required in order to be admitted to the final examinations in all the prescribed modules of the degree. A final mark of 50% is required to pass all coursework modules and the mini-dissertation.

## Pass with distinction

The degree is conferred with distinction on students who have obtained at least 75% for the mini-dissertation and a minimum of 75% weighted average final mark for the coursework modules.



---

## Curriculum: Year 1

### Core modules

- Introduction to big data science 800 (MIT 800) - Credits: 5.00
- Introduction to machine and statistical learning 801 (MIT 801) - Credits: 15.00
- Introduction to data platforms and sources 802 (MIT 802) - Credits: 5.00
- Introduction to Information Ethics for Big Data Science 803 (MIT 803) - Credits: 5.00
- Introduction to mathematical optimization for big data science 804 (MIT 804) - Credits: 5.00
- Big data 805 (MIT 805) - Credits: 10.00
- Big data management 806 (MIT 806) - Credits: 10.00
- Research methods for big data science 809 (MIT 809) - Credits: 5.00

### Elective modules

- Big data science elective 801 (COS 801) - Credits: 5.00
- Big data science elective 802 (COS 802) - Credits: 5.00
- Big data science elective 801 (ERZ 801) - Credits: 5.00
- Big data science elective 802 (ERZ 802) - Credits: 5.00
- Big data science elective 801 (INF 801) - Credits: 5.00
- Big data science elective 802 (INF 802) - Credits: 5.00
- Big data science elective 820 (INL 820) - Credits: 5.00
- Statistics elective 801 (STK 801) - Credits: 5.00
- Statistics elective 802 (STK 802) - Credits: 5.00
- Big data science elective 801 (WTW 801) - Credits: 5.00
- Big data science elective 802 (WTW 802) - Credits: 5.00



## Curriculum: Final year

### Core modules

Mini dissertation in big data science 807 (MIT 807) - Credits: 90.00

Big data science project 808 (MIT 808) - Credits: 20.00

---

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.