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