This course will give graduates the skills required for building data systems, architecture and platforms to support big data solutions.

Big data is a fast evolving field in business and commerce, enjoying a growing demand for professionals with the expertise to build IT solutions to manage it.

In this course you will develop a thorough understanding of IT systems, concepts and methodologies, as well as a comprehensive knowledge of networking, technology and systems, data security and infrastructure engineering.

You will also develop analytical and critical evaluation skills that you will be able to apply to practical projects and simulated real workplace contexts.

On successful completion of this course you will be able to work in a range of roles related to the management and security of big data.

A Diploma of Information Technology is also available. The Diploma, which comprises all eight first year subjects, can be completed in one year full-time. Graduates of the Diploma will be able to apply for entry level IT positions. Alternatively, they can continue their studies with direct entry into second year of the Bachelor.

COURSE REQUIREMENTS

The Bachelor of Information Technology (Data Engineering) requires you to complete 24 subjects and a total of 240 credit points.

A one year Diploma of Information Technology is also available, requiring the completion of 8 subjects and 80 credit points.
HOW IS THE COURSE STRUCTURED?

This structure is the typical study pattern for a full-time student. All subjects are worth 10 credit points (CP). 240 credit points are required to complete this course. The Diploma of Information Technology requires the completion of all Year 1 subjects.

YEAR 1 - LEVEL 100: FOUNDATION SKILLS

SEMESTER 1: Complete all subjects
- ITICT102A Introduction to Programming (10 CP)
- ITICT103A Internetworking 1 (10 CP)
- ITICT106A Introduction to Computing (10 CP)
- ITPRD101A Critical Thinking for the IT Professional (10 CP)

SEMESTER 2: Complete all subjects
- ITDAT101A Introduction to Data Analysis (10 CP)
- ITICT104A Internetworking 2 (10 CP)
- ITICT107A Introduction to Databases (10 CP)
- ITPRD102A Communication for the IT Professional (10 CP)

YEAR 2 - LEVEL 200: DEVELOPMENT

SEMESTER 1: Complete all subjects
- ITDAT201A Advanced Data Analysis (10 CP)
- ITICT207A Fundamentals of Computer Science (10 CP)
- ITNET203A Network Security (10 CP)
- ITPRD205A Project Management (10 CP)

SEMESTER 2: Complete all subjects
- ITDAT202A Data Infrastructure Engineering (10 CP)
- ITICT205A Virtualisation (10 CP)
- ITPRD202A Professional Issues in IT (10 CP)

Choose one elective from:
- ITICT202A Wireless Networks (10 CP)
- ITICT206A Machine Learning (10 CP)
- ITNET202A Enterprise Security (10 CP)
- ITPRD203A Knowledge Management (10 CP)

YEAR 3 - LEVEL 300: SYNTHESIS

SEMESTER 1: Complete all subjects
- ITDAT301A Big Data and Advanced Data Concepts (10 CP)
- ITDAT302A Data Mining and Visualisation (10 CP)
- ITNET311A Major Group Project (10 CP)

SEMESTER 2: Complete all subjects
- ITDAT303A Data and Network Security (10 CP)
- ITDAT304A Emerging Trends in Data Technology (10 CP)
- ITNET312A Major Individual project (10 CP)

YEAR 3 ELECTIVES
Complete one each semester in Year 3 (10CP)
- ITICT303A Distributed Computing (10 CP)
- ITNET307A National Data Infrastructure Security (10 CP)
- ITNET308A eCommerce and eGovernment Security (10 CP)
- ITNET309A Computer and Network Forensics (10 CP)
- ITNET310A Software Defined and Programmable Networks (10 CP)

TERMS AND CONDITIONS

This document is intended as a general guide only. Information in this document is current as of August 2020. Prospective students should contact TAFE NSW for more information, and to confirm admission requirements and availability of courses. Note that tuition fees are reviewed annually and are subject to change. For current fee information, see tafensw.edu.au/degrees/applying-and-fees/fees-and-payment

Fees payable by the students are the tuition fees valid for that semester, and not the tuition fees that were in place the first time the students enrolled. Additional fees may be payable for equipment and resources.