

2.1. Brief description of the programme & programme aims

This is the student handbook for the programme, TU5294 CPD Diploma in Data Analysis for Professionals delivered by the School of Mathematics & Statistics, TU Dublin. It is a 45 ECTS (European Credit Transfer System) credits programme at level 8 on the National Framework of Qualifications (NFQ) and is offered on a part-time basis.

Data analysis and statistical skills and the ability to apply these to data sets and problems are extremely important modern graduate attributes. The aim of the programme is to equip participants with the statistical and mathematical knowledge required to extract critical information from business and industry data sets. A key objective is to develop the student's core skills associated with the principles of statistical data analysis including how to interpret a data set and how best to represent the data and the results of the analysis. A blend of theory and practice with a strong emphasis on the use of modern software packages, such as R will underpin the programme.

The programme also aims to provide students the opportunity to learn how companies and institutions use the results of data analyses in their decision-making processes. A core component of the programme will be an industry linked business case study project thus providing the learner with career focused learning, discovery and application of knowledge. The modules are delivered in the evenings, making the programme attractive to those in full-time employment.

The programme aims and learning outcomes are summarised below, consistent with the award-type descriptor for a level 8 CPD Diploma.

2.1.1. TU5294 Learning Outcomes

Knowledge – breadth and kind

On successfully completing this programme, the learner will:

- understand the fundamentals of the statistical theory underpinning data analysis;
- understand the value of accurate and reliable information in decision making;
- have a good understanding of industry best practice in the area of metrics and intelligence-based decision making.

Know-how and skill – range and selectivity

On successfully completing this programme the learner will:

- use software to pre-process (data cleaning, data transformation, data aggregation, data validation) a data set;
- use software to perform a statistical data analysis;
- critically analyse, interpret and draw conclusions from a data analysis exercise;
- write a report on data analysis finding.

Competence – context, role, learning to learn and insight

Graduates of the programme will have the ability to:

- formulate and communicate the objective of the data analysis;
- communicate results of a data analysis in a clear and concise manner by means of a formal written report;
- demonstrate the ability to work independently and to recognise the need for, and seek, appropriate academic support;
- work effectively in both independent and team-based projects.

2.1.2. Programme title & award

Candidates who successfully complete 45 ECTS are eligible for the award:

CPD (Continuing Professional Development) Diploma in Data Analysis for Professionals

The award is made without classification (see Studying on the programme/Assessment/Award).

2.1.3. NQAI level

The programme is level 8 on the National Framework of Qualifications.

2.1.4. Location

The School of Mathematics & Statistics is responsible for mathematics and statistics across Technological University Dublin. It therefore engages in activities across TU Dublin's locations including on its campus locations in Grangegorman, Bolton Street, Tallaght, Blanchardstown, Aungier Street.

The School's main office and address for correspondence is in Central Quad on the Grangegorman campus.

Your programme is principally online, delivered through the University VLE, although individual activities may take place in other onsite locations or online platforms.