

2.1. Brief description of the programme & programme aims

This is the student handbook for the programme, TU248 Postgraduate Certificate in Applied Statistics delivered by the School of Mathematics & Statistics, TU Dublin. It is a 30 ECTS (European Credit Transfer System) credits programme at level 9 on the National Framework of Qualifications (NFQ) and is offered on a part-time basis.

Advanced statistical skills and the ability to apply these to data sets and problems are extremely important modern graduate attributes. This single-stage programme studies a range of modern topics in statistics at post graduate certificate level. The programme is suitable for professionals who wish to learn statistics for the first time or build on their existing knowledge and skills set. The programme will be a blend of underlying theory and practise with an emphasis on the use of modern software packages, such as R. The overarching aim is to produce graduates that are skilled practitioners using statistical software packages and possess a good understanding of statistics.

Participants will also enhance their problem-solving and decision-making skills by building and strengthening their analytical capabilities. Students study two modules each semester and the programme requires the successful completion of four modules. 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 Postgraduate Certificate.

2.1.1. TU248 Learning Outcomes

Knowledge – breadth and kind

On successfully completing this programme, the learner will:

- have developed a strong understanding of the concepts underpinning statistical data analysis over a range of data set types;
- have developed the advanced techniques and statistical tools required to analyse different data sets and scenarios;
- have acquired a deep understanding of a wide range of mathematical models, techniques and the statistical tools required to build applied statistical models.

Know-how and skill – range and selectivity

On successfully completing this programme the learner will:

- have the required skill set to build accurate and robust statistical mathematical models using a modern software package;
- critically analyse, interpret and draw conclusions from a statistical data set;
- be able to apply statistical concepts and techniques to analyse and solve problems;
- be able to use analytical and problem-solving skills set.

Competence – context, role, learning to learn and insight

Graduates of the programme will:

- have the ability to formulate and communicate the objectives of a statistical data analysis and interpret the results of such an analysis in a meaningful context;
- be equipped with the statistical modelling and analytical skills set required for technical professional roles in industry and research;
- be highly qualified professionals with advanced analytical and problem-solving skills.

2.1.2. Programme title & award

Candidates who successfully complete 30 ECTS are eligible for the award:

Postgraduate Certificate in Applied Statistics

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

2.1.3. NQAI level

The programme is level 9 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.