CERTIFICATE IN INTRODUCTORY DATA ANALYTICS
BRIDGING QUALITATIVE AND QUANTITATIVE ANALYSIS

DESCRIPTION OF CERTIFICATE

Elevate the decision-making for your organization with our *Certificate in Introductory Data Analytics: Bridging Qualitative and Quantitative Analysis.* Discover the importance of data-driven insights to make educational organizational and business decisions.

From foundational principles to advanced techniques, this certificate covers data collection, cleaning, and analysis of both quantitative and qualitative data. Gain hands-on experience with real-world datasets, improving your ability in statistical analysis and visualization. Understand the art of transforming raw data into actionable intelligence, fostering a strategic mindset.

Whether you're a beginner seeking to enter the data analytics world or a seasoned professional aiming to refine your skills, this Certificate empowers you to channel the full potential of quantitative and qualitative data for organizational success.

UNIVERSITY
of Prince Edward
ISLAND

Office *of*
CONTINUING EDUCATION *and*
PROFESSIONAL DEVELOPMENT

CERTIFICATE STRUCTURE

The *Certificate in Introductory Data Analytics: Bridging Qualitative and Quantitative Analytics* has three (3) courses, each lasting six (6) hours. All courses are in-person.

COURSES

Introduction to Quantitative Analysis (Six hours)

The "Introduction to Quantitative Analysis" course is an introduction to applied statistics as used by behavioural scientists in measurement, data, analysis, and design of experiments.

This course stresses both an understanding of the rationale governing the selection of appropriate designs or techniques and understanding how to interpret data.

Topics include:

- » Scaling
- » Measures of central tendency and variability
- » Probability
- » Statistical inference and hypothesis testing

- » Means test (z and t)
- » Correlational techniques
- » Chi-square and other non-parametric techniques
- » Analysis of variance

Qualitative Analysis I (Six hours)

The "Qualitative Analysis I" course will introduce qualitative analysis with a focus on Thematic Analysis (TA) as outlined by Braun and Clark (2006). They provide the classic framework for doing thematic analysis.

There will be a brief introduction to qualitative research and coding. This will provide participants with other approaches to qualitative analysis as contrasted to RFA. The focus of our day will be on reflexive thematic analysis (RTA) with hands-on analysis practice, and understanding triangulation of data. The key points of RTA will be examined, clarifying definitions for your work, as well as the triangulation of codes.

Qualitative Analysis II – Report Writing, Ethics and Types of Qualitative Research (Six hours)

The "Qualitative Analysis II" course dives deeper into qualitative analysis, starting with a discussion of ethics.

There will be a deep examination—beyond focus group research—by discussing other types of qualitative research, including field research, interviews, and participatory action research (PAR). The day will conclude by participants learning how to properly write a qualitative research report.

Much of the course information will be taken from D.K. van den Hoonard's *Qualitative Research in Action: A Canadian Primer* (2019).