## Introduction

Hello and Welcome to TIM-7101: Statistics with Technology Applications.

This course is important because it serves as an extensive and applied exploration of statistics for the technology leader, which includes commonly used statistical applications and visualizations that are used in information systems and technology research.

During this course, you will use different statistical tools to enhance your advanced analytical skillset, and these skills can be used to drive continuous improvement and/or growth with your organization. These statistical analysis skills are required to plan, conduct, and interpret quantitative data to inform enterprise decisions. You will also learn to illustrate and produce technical output reports for optimal impact.

During this course, you will analyze quantitative data using a variety of statistical methods and appropriate research designs to ensure a high degree of validity, you will interpret quantitative data analysis results to inform enterprise decision-making, you will evaluate various statistical applications for impact to help support decision-making, and you will generate statistical reports using technology tools.

Some of the concepts and topics covered in this course include:

* Descriptive Data Analysis
* Statistics, Probability, Random Variables, and Probability Distributions
* Inferential Data Analysis
* Predictive Analysis
* Design of Experiments
* Enterprise Decision-Making Applications
* Statistical Reporting

By completing the work in this course, particularly the signature assignment, Formulate a Strategic Plan Informed by Statistical Applications, you will be able to design a strategic plan for organizational continuous improvement or growth based on your design of an experiment and analysis of data, and you will practice writing and designing reports for communicating your results to inform enterprise decision-making.

You will gain the skills necessary to identify a practical problem, collect and analyze data to address the problem, and develop and communicate a strategic plan based on the insights that you gleaned from your quantitative data analysis results.

As you know, NCU uses a unique one-to-one learning model. If you would like to connect with other students in this same course, or your degree program, or others with similar interests, please explore NCU’s internal social network, the Commons. You may already be connected; if not, take some time to check it out.

Remember that your instructor is here to support your success, as is an entire team on the other side of your screen. Let us know how we can help.

I would like to leave you with one more important thought. Developing the competency to design a valid research study to address a technology-related problem in your industry is critical for your ability to promote continuous improvement and growth within your organization.

There is a lot to do, so let’s get started!