

## Introduction

Welcome to the MHZ4377: Applied Statistics through Open and Distance Learning. This course is one of the Level 4 Mathematics courses that make up the Bachelor of Software Engineering Honours Programme. It is a 3-credit course which will require about 157 hours of study.

In this course we will discuss about the statistical techniques used to model and solve industrial related problems. The course should help you to acquire the statistical skills required for a degree in industrial studies or in software engineering. At the end of the course, you will be able to apply the acquired statistics knowledge and skills in solving industrial problems and in research work.

## Prerequisites

In order to gain entry into this course, you will need to have completed 18 credits.

## Structure of Course

MHZ4377 course consists of two blocks, where the **Block I** contains the Introduction to statistics and the theories and applications related to the Probability and Probability Distributions. The **Block II** consists with Statistical Inference, Correlation and regression analysis and Statistical computing using R software.

## Teaching Strategies



### *Day schools*

There will be twelve-day schools during which you will be able to sort out any problems you may encounter. They will cover the following topics.

Day school 1 & 2 – Introduction to statistics.

Day school 3 & 4 – Basic Probability and Conditional Probability.

Day school 5 & 6 – Distribution theory.

Day school 6 & 7 – Sampling Distribution and Statistical inference  
for one sample Problems.

Day school 8 & 9 – Statistical inference for two sample Problems and  
comparing more than two population.

Day school 10 & 11 – Correlation and Regression.

Day school 11 & 12 – Statistical Computing.

# Assessment

## *Continuous Assessments*

- Continuous Assessment Test (CAT) – 02 (1 hours 15 minutes each)
- Tutor Marked Assignments (TMAs) - 03

### Eligibility Criteria (OCAM)

$$CA\ Mark = Average\ (TMA) * 0.2 + (B.\ CAT) * 0.6 + (S.\ B.\ CAT) * 0.2 \geq 40\%$$

*Important: For the OCAM it will take 60% from the best CAT, 20% from the second-best CAT and 20% from the TMAs.*

*Thus, it is important to keep in mind that the learner who has sat for both CATs can get high marks as OCAM than the learners who have sat only one CAT.*

## *Final Examination*

### **Three Hour Test**