

MODULE: BUSINESS MATHEMATICS & STATISTICS

CODE: BAAF-1-1-09

Stage: I

Number of Credits: 4 semester credits / 6 quarter units

Theme: Finance

Assessment Weighting: 40% Coursework 60% Examination

INTRODUCTION

This module provides the students with the essential analytical skills to support an accurate and rigorous approach to decision making. The module is specifically designed to develop the students modelling abilities and problem solving skills required in the modern business world.

SYLLABUS

Data presentation and collection

Frequency distribution

Frequency tables

Histograms, ogives bar charts, pie charts, etc

Central location and dispersion

Measures of central location

Measures of dispersion

Regression & Correlation

Regression analysis

Correlation

Time series

Multiple regression

Applications

Probability

The rules

Decision Trees

Permutation and combinations

Probability Distributors

Normal

Binomial

Poisson

Sampling and tests of hypothesis

Types of samples

Distribution of means

Central limit theorem

Confidence of intervals

Tests of hypothesis

Index Numbers

Constructing an index number

The Laspeyres price index

The Paasche price index

Changing the real base

Changing the base year

The retail price index

Time Value of Money

Discounting and present values

Investment appraisal

Depreciation

Annuities and financial instruments

Calculus and business applications