



Mathematics Department – Lower Sixth S1 Scheme of Work

Textbook: Edexcel Statistics S1

Unit 1: Background Statistics

- 1.1 Types of data
- 1.2 Stem and leaf diagrams
- 1.3 Histograms for equal class intervals
- 1.4 Averages
- 1.5 Quartiles
- 1.6 Boxplots

Unit 2: Mathematical Models

- 2.1 Mathematical modelling
- 2.2 Mathematical modelling in probability and statistics

Unit 3: Representing and analysing data

- 3.1 Back-to-back stem and leaf diagrams
- 3.2 Boxplots and outliers
- 3.3 Histograms for unequal class intervals
- 3.4 Quartiles
- 3.5 Variance and Standard Deviation
- 3.6 Coding/Scaling data/Transforming data
- 3.7 Skewness
- 3.8 Comparing distributions

Test on units 1-3

Unit 4: Probability

- 4.1 Basic concepts and language of probability
- 4.2 Two events
- 4.3 Venn diagrams
- 4.4 Tree diagrams
- 4.5 Conditional probability
- 4.6 Relationships between events

Unit 5: Correlation

- 5.1 Introduction to correlation and scatter diagrams
- 5.2 Calculating the product moment correlation coefficient
- 5.3 Interpretation of the correlation coefficient
- 5.4 Use of coding

Test on units 4 and 5

Unit 6: Regression

- 6.1 Line of best fit
- 6.2 Line of regression(least squares line)
- 6.3 Prediction/estimate using regression lines
- 6.4 Coding bivariate data

Unit 7: Discrete Random Variables

- 7.1 Discrete random variables
- 7.2 The probability function $p(x)$
- 7.3 The cumulative distribution function $F(x)$

Test on units 6 and 7

Unit 8: The Normal Distribution

- 8.1 Continuous probability and the Normal distribution
- 8.2 Standard Normal distribution
- 8.3 Calculating probabilities for the $N(\mu, \sigma^2)$ distribution
- 8.4 Using the Normal distribution

Test on unit 8