Module Specification

Foundation Statistics

Version: 2023-24, v2.0, 31 Jan 2023

Contents

Part 1: Information

Module title: Foundation Statistics

Module code: UFMFDG-15-0

Level: Level 3

For implementation from: 2023-24

UWE credit rating: 15

ECTS credit rating: 7.5

Faculty: Faculty of Environment & Technology

Department: FET Dept of Computer Sci & Creative Tech

Partner institutions: None

Field: Computer Science and Creative Technologies

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

Educational aims: See Learning Outcomes.

Outline syllabus: Introduction to Minitab; data entry, descriptive and graphical representations of data, simulation of data and probability distributions, fitting statistical models.

Discrete and continuous probability distributions including the binomial and normal.

Sampling distributions, estimation including Confidence Intervals.

Hypothesis testing: Z-tests, Chi-square tests for contingency tables and goodness of fit.

Correlation and regression.

Part 3: Teaching and learning methods

Teaching and learning methods: Scheduled teaching hours will take the form of:

On alternative weeks: Two hours lecture/workshop in a computer lab and a one hour lecture/tutorial in a classroom.

Contact time 36 hours
Assimilation and development of knowledge 72 hours
Assessment 42 hours
TOTAL 150 HOURS

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Present numerical information using a variety of graphical formats

MO2 Conduct a variety of elementary data analysis investigations using standard statistical software

MO3 Show an understanding of the basic methods of statistical inference

MO4 Communicate the results of a statistical analysis in the form of a written report

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Total = 150

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/ufmfdg-15-0.html

Part 4: Assessment

Assessment strategy: The assessment is design for student's to develop and implement computer based solutions to statistical problems that arise in an applied context. The module provides an introductory course in statistics and so the use of software at an early stage allows to students to gain confidence in the subject, by being able to generate data and focus on the interpretation of statistical numerical and graphical information. The output from the investigation will be a written report where students can demonstrate their ability to to present information in a clear and concise way.

Assessment tasks:

Written Assignment (First Sit)
Description: Investigation
Weighting: 100 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO2, MO3, MO4

Written Assignment (Resit)
Description: Investigation
Weighting: 100 %
Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Mathematics {Foundation} [Frenchay] BSc (Hons) 2023-24