FP039-15 Essential Mathematics

23/24

Department Warwick Foundation Studies Level Foundation Module leader Joe Alcantara Credit value 15 Module duration 12 weeks Assessment 100% coursework Study location University of Warwick main campus, Coventry

Description

Introductory description

FP039-15 Essential Mathematics

Module web page

Module aims

To provide students with the mathematical competence necessary for subsequent degree-level study in Management or Business.

To develop students' awareness of mathematical tools for modelling the characteristics of business decisions.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

- 1. Number: Rational number equivalences, Numerical accuracy.
- 2. Algebra: Fundamentals of Algebra, Algebraic equations, Coordinate geometry, Simultaneous equations, Inequalities.

- 3. Discrete Maths: Graph theory, Critical path analysis, Gantt charts, Scheduling diagrams.
- 4. Statistics: Summary statistics; including from grouped data, Data and Data presentation, Bivariate data, Correlation and Regression including hypothesis testing.
- 5. Probability: Elementary Probability, Laws of Probability, Bayes' theorem, Probability Distributions including hypothesis testing.

Learning outcomes

By the end of the module, students should be able to:

- Evaluate a range of mathematical skills and techniques and apply them to problems that arise in a business setting
- Select and apply basic statistical techniques and statistical methodologies in order to analyse a range of problems in a business setting
- To apply diagrams, graphs and technology to help explore mathematical situations and analyse these in a business and real-world context
- Apply probability concepts to model uncertain real-world contexts and understand the outcomes.

Indicative reading list

Essential Maths for Business and Management (Morris, 2007) Foundation Maths (Croft and Davison, 2016)

View reading list on Talis Aspire

Interdisciplinary

The module takes Mathematics and applies it directly to the real world of business to solve problems effectively and efficiently and with verifiable significance.

Subject specific skills

Hypothesis testing to verify significance, numeracy, use of technology and power of analysis to decide methodology.

Transferable skills

Presentation, groupwork, delivering a project, report writing, technical analysis of real world problems.

Study

Study time

Туре	Required
Lectures	12 sessions of 1 hour (8%)
Seminars	36 sessions of 1 hour (24%)
Private study	72 hours (48%)
Assessment	30 hours (20%)
Total	150 hours

Private study description

Independent study

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

separate document. Communication via forum on Moodle/Teams.

Assessment group A2

	Weighting	Study time	Eligible for self- certification
Assessment component			
Project Management Coursework	50%	15 hours	Yes (extension)
Presentation of work as Individuals are project m Minutes per person plus	a group to highlight ir anagers, for one of 3 brief final conclusion	ndividual work and fir projects, for one cor . Along with submiss	nal conclusions on cost. Instruction company. Max 4 ion of individual analysis as a

Reassessment component

Project Management	Ves (extension)	
Coursework	res (extension)	
Presentation of work as an individual to highlight wo	rk and final conclusions on cost for their own	

Weighting

Study time

Eligible for selfcertification

project. Individuals are project managers on a given project for a construction company. Max 4 Minutes presentation including a brief conclusion on cost. Along with submission of individual analysis as a separate document.

Assessment component

End of module test50%15 hoursNoStatistics and Hypothesis testing formal calculations needed for undergraduate study.

Reassessment component is the same

Feedback on assessment

Student to view feedback on presentation in class. Tabula.

Availability

Courses

This module is Core for:

• Year 1 of FIOE Warwick International Foundation Programme