

IB004-12 Statistics

20/21

Department

Warwick Business School

Level

Foundation

Module leader

Katy Hoad

Credit value

12

Module duration

10 weeks

Assessment

20% coursework, 80% exam

Study location

University of Warwick main campus, Coventry

Description

Introductory description

This statistics module forms an important part of the Foundation Year course to equip students with the statistical knowledge and skills necessary for successful subsequent degree-level study in Accounting and Finance or Management.

[Module web page](#)

Module aims

To equip students with the statistical knowledge and skills necessary for successful subsequent degree-level study in Accounting and Finance or Management.

To develop in students a critical awareness of the power of statistical tools for modelling the key characteristics of 'real world' business situations, and an appreciation of both their scope and limitations.

To equip students with the skills to interpret, report and critically appraise statistical information.

To encourage students to take responsibility for their own learning, and to evaluate their own development.

Specific aims of the statistics component of the module are:

1. To encourage students to critically appraise statistical data and to assess the accuracy,

- validity and reliability of reported results.
2. To develop the fundamental skills of statistical report writing.

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.

Fundamental statistical concepts with the emphasis on critical appraisal of real-world statistics:

1. Introduction to statistics and data visualisation
2. Descriptive statistics
3. Rules of probability
4. Correlation
5. Normal distribution
6. Binomial distribution
7. Introduction to Hypothesis Testing
8. Summarising information and statistical report writing. Statistical analysis for lay audiences, pulling together and summarising statistical information from diverse sources and good practice in reporting statistics (what to do and what not to do).
9. Using software (e.g. SPSS / Excel) for statistical analysis

Learning outcomes

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

- By end of the module the students should be able to apply their repertoire of statistical tools and techniques to a variety of business problems.
- By end of the module the students should be able to construct rigorous arguments by framing precise statements that lend themselves to statistical inference.
- By end of the module the students should be able to undertake basic statistical analyses of data using appropriate statistical software eg SPSS, Minitab.
- By end of the module the students should be able to interpret the results of statistical analyses, and use them to inform decision-making.
- By end of the module the students should be able to critically appraise reported statistical results, carefully considering the validity of the underlying assumptions.
- By end of the module the students should be able to produce well-written statistical reports.
- By the end of the module students should be able to critically appraise statistical data and to assess the accuracy, validity and reliability of reported results.
- By the end of the module students should have the awareness to take responsibility for their own learning, and to evaluate their own development.
- Have gained the fundamental skills of statistical report writing.

Indicative reading list

Bland M (2002) An Introduction to Medical Statistics (3rd ed., OUP)
Goldacre B (2009) Bad Science (Harper)

Subject specific skills

By the end of the module students should:

1. Have gained statistical knowledge and skills necessary for successful subsequent degree-level study in Accounting and Finance or Management.
2. Have developed a critical awareness of the power of statistical tools for modelling the key characteristics of 'real world' business situations, and an appreciation of both their scope and limitations.
3. Be able to interpret, report and critically appraise statistical information.
4. Have developed the fundamental skills of statistical report writing.

Transferable skills

By the end of the module students should:

1. Be able to critically appraise statistical data and to assess the accuracy, validity and reliability of reported results.
 2. Have the awareness to take responsibility for their own learning, and to evaluate their own development.
 3. Have gained the fundamental skills of statistical report writing.
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Study

Study time

Type	Required
Lectures	18 sessions of 2 hours (30%)
Private study	34 hours (28%)
Assessment	50 hours (42%)
Total	120 hours

Private study description

Preparing for lectures; preparing for assignment; preparing for exam.

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group D1

	Weighting	Study time
Individual Assignment (12 CATS)	20%	10 hours
Online Examination	80%	40 hours

- Students may use a calculator
- Economics dept. statistical tables (yellow/ red)
- Graph paper
- Cambridge Statistical Tables (blue)

Feedback on assessment

Feedback methods will be: full feedback on formal assessment: assignment and exam. Feedback will be provided within classes on in class work. Full solutions to any set exercises will be given. Formative homework will also be set and feedback given at set points in the term.

[Past exam papers for IB004](#)

Availability

Courses

This module is Core for:

- Year 1 of UIBA-N403 Undergraduate Accounting and Finance (with Foundation Year)
- UIBA-N20E Undergraduate Management (with Foundation Year)
 - Year 1 of N20E Management (with Foundation Year)
 - Year 1 of N23N Management with Accounting (with Foundation Year and Placement Year)
 - Year 1 of N23M Management with Accounting (with Foundation Year)
 - Year 1 of N23E Management with Digital Innovation (with Foundation Year)
 - Year 1 of N23F Management with Entrepreneurship (with Foundation Year)
 - Year 1 of N23D Management with Finance (with Foundation Year)
 - Year 1 of N254 Management with Marketing (with Foundation Year)
 - Year 1 of N23P Management with Strategy and Organisation (with Foundation Year)