

Module Code:	COM451
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Module Title:	Quantitative Analysis
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Level:	4	Credit Value:	20
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Cost Centre(s):	GACP	<u>JACS3</u> code:	I111
		<u>HECoS</u> code:	100734

Faculty:	Arts, Science and Technology	Module Leader:	Julie Mayers
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Scheduled learning and teaching hours	36 hrs
Guided independent study	164 hrs
Placement	0 hrs
Module duration (total hours)	200 hrs

Programme(s) in which to be offered (not including exit awards)	Core	Option
BSc (Hons) Computing	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BSc (Hons) Computing (with Industrial Placement)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Delivery as standalone or part of CPD package	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Pre-requisites
None.

Office use only

Initial approval: 28/11/2018
 With effect from: 01/09/2019
 Date and details of revision:

Version no:1

 Version no:

Module Aims

The module aims to provide students with an introduction to the use of statistical methods for the analysis of quantitative data using both Microsoft Excel and SPSS.

Intended Learning Outcomes

Key skills for employability

- KS1 Written, oral and media communication skills
- KS2 Leadership, team working and networking skills
- KS3 Opportunity, creativity and problem solving skills
- KS4 Information technology skills and digital literacy
- KS5 Information management skills
- KS6 Research skills
- KS7 Intercultural and sustainability skills
- KS8 Career management skills
- KS9 Learning to learn (managing personal and professional development, self-management)
- KS10 Numeracy

At the end of this module, students will be able to

Key Skills

1	Design and develop flexible structured spreadsheets to perform numerical data modelling to solve business problems	KS3	KS10
		KS4	
		KS5	
2	Produce charts, develop macros, sort data and use the functionality of spreadsheet software offered for optimisation calculations and data analysis	KS3	KS10
		KS4	
		KS5	
3	Identify and apply qualitative data collection methods and apply data analysis techniques	KS3	KS10
		KS4	
		KS5	

Transferable skills and other attributes

- Information management
- ICT skills

Derogations

None

Assessment:

Indicative Assessment Tasks:

The assessment will take the form of coursework (100%) which will be based around the design and manipulation of Spreadsheets, and principles of Data Analysis that will allow the student to gain practical skills. Formative assessment will be carried out through laboratory exercises, making use of relevant tasks and scenarios. Assessment 1 will be based on Spreadsheets, while Assessment 2 will look at SPSS.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)	Duration (if exam)	Word count (or equivalent if appropriate)
1	1, 2	Coursework	50		
2	3	Coursework	50		

Learning and Teaching Strategies:

This module has an emphasis in the practical issues related to the design and manipulation of Spreadsheets, and principles of Data Analysis using SPSS. It will be delivered using a combination of formal lecturers, tutorials, practical demonstrations and lab sessions. Lectures will present the main concepts, while lab sessions will combine in-lab instruction and demonstrations with supervised exercises. These will be supported with additional materials, links to useful resources, additional exercises, peer support and tutor support in the VLE.

Syllabus outline:

- Using MS Excel
 - Produce high quality spreadsheet output;
 - Use the mathematical, logical, data organisation, information extraction and presentation functionality;
 - Manipulate numeric, text and graphical data.
 - Produce of outputs from multiple workbooks, produce charts, develop macros, sort data and use the functionality offered for optimisation calculations.
 - Manipulate Macros; Forms; Nested Functions; Advanced Functions; Filtering Data; Auditing Data.
- SPSS and data analysis

Indicative Bibliography:
Essential reading
There are no essential textbooks; the module will use relevant online reference material and the lecture notes.
Other indicative reading
CiA Training Ltd, (2018). CiA Training.co.uk. [Online] Available at: http://www.ciatraining.co.uk/ Poatsy, M.A. et al. (2016). <i>Exploring Microsoft Office 2016 Vol 1</i> . Boston: Pearson. Field, A. (2018), <i>Discovering statistics using IBM SPSS Statistics</i> . 5th ed. London: Sage. Manning, C. and Manning Swinson, S.L. (2017), <i>Microsoft Office 2016: A Skills Approach</i> . McGraw-Hill. Stern, L. (2013), <i>Visual Approach to SPSS for Windows</i> . 2nd ed. Harlow: Pearson.