

## H8BDA: Business Data Analysis

Module Code:	H8BDA
Long Title	Business Data Analysis <b>APPROVED</b>
Title	Business Data Analysis
Module Level:	LEVEL 8
EQF Level:	6
EHEA Level:	First Cycle
Credits:	5
Module Coordinator:	EUGENE O'LOUGHLIN
Module Author:	EUGENE O'LOUGHLIN
Departments:	School of Computing
Specifications of the qualifications and experience required of staff	
<b>Learning Outcomes</b>	
<i>On successful completion of this module the learner will be able to:</i>	
<b>#</b>	<b>Learning Outcome Description</b>
LO1	Explain the principles and uses of descriptive statistics and inferential statistics.
LO2	Use Principles of statistical Inquiry
LO3	Carry out analyses based on descriptive and inferential statistics within a business context
LO4	Demonstrate the usage of methodologies applied in prediction (forecasting)
LO5	Use and understand software tools for business data analysis (e.g. SPSS, R, Excel)
<b>Dependencies</b>	
<b>Module Recommendations</b>	
No recommendations listed	
<b>Co-requisite Modules</b>	
No Co-requisite modules listed	
<b>Entry requirements</b>	

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Module Content & Assessment			
Indicative Content			
<b>Descriptive Statistics/Data Presentation (30 %)</b> Arrangement, pre-processing and representation of data Measures of central tendency (mode, median, mean) Measures of dispersion (range, variance, standard deviation) Scales of Variables Statistical graphics & figures (e.g., pie chart, bar chart)			
<b>Inference Statistics (35 %)</b> Standard Errors Hypothesis Testing Parametric Tests (e.g., T-Test, ANOVA, regression) Non-parametric Tests (e.g., chi-square tests)			
<b>Prediction/Forecasting (35 %)</b> Simple Linear Regression Correlation Smoothing and filtering of data Nature of time series			
Assessment Breakdown			%
Coursework			50.00%
End of Module Assessment			50.00%
Assessments			
Full Time			
Coursework			
<b>Assessment Type:</b>	Assignment	<b>% of total:</b>	50
<b>Assessment Date:</b>	n/a	<b>Outcome addressed:</b>	1,2,3,4,5
<b>Non-Marked:</b>	No		
<b>Assessment Description:</b> Assessment will consist of week graded tutorials to carry our statistical analysis on sample data sets using tools such as Excel, R, and SPSS.			
End of Module Assessment			
<b>Assessment Type:</b>	Terminal Exam	<b>% of total:</b>	50
<b>Assessment Date:</b>	End-of-Semester	<b>Outcome addressed:</b>	1,2
<b>Non-Marked:</b>	No		
<b>Assessment Description:</b> End-of-Semester Final Examination			
No Workplace Assessment			
Reassessment Requirement			
<b>Repeat examination</b> Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.			

## H8BDA: Business Data Analysis

Module Workload				
Module Target Workload Hours 0 Hours				
Workload: Full Time				
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	No Description	2	Every Week	2.00
Tutorial	No Description	1	Every Week	1.00
Independent Learning	No Description	7.5	Every Week	7.50
Total Weekly Contact Hours				3.00
Workload: Part Time				
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	No Description	2	Every Week	2.00
Total Weekly Contact Hours				2.00

Module Resources	
<i>Recommended Book Resources</i>	
<p>Neil J. Salkind. (2014), <i>Statistics for People Who (Think They) Hate Statistics</i>, 5th. Sage Publications, Inc, Thousand Oaks, p.483, [ISBN: 978-1-4522-777].</p> <p>McClave, James &amp; Sincich, Terry. (2012), <i>Statistics</i>, 12th edition.. Pearson.</p>	
<i>Supplementary Book Resources</i>	
<p>Andy Field. (2013), <i>Discovering Statistics Using IBM SPSS Statistics</i>, 4th. Sage Publications Inc, London, p.915, [ISBN: 978-1-4462-49].</p> <p>Peter Dalgaard. <i>Introductory Statistics with R</i>, 2008. Springer, p.364, [ISBN: 9780387790534].</p> <p>Maindonald John. (2008), <i>JohnUsing R for data analysis and graphics. Introduction, code and commentary</i><a href="http://cran.r-project.org/doc/contrib/usingR.pdf">http://cran.r-project.org/doc/contrib/usingR.pdf</a>. ..</p> <p>McClave, James T., Benson, George &amp; Sincich, Terry. (2013), <i>Statistics for Business and Economics</i>, 12th. Prentice Hall.</p>	
<i>This module does not have any article/paper resources</i>	
<i>This module does not have any other resources</i>	
Discussion Note:	