



CHRISTIAN HERITAGE COLLEGE

BZ201

DATA ANALYSIS

This sample unit outline is provided by CHC for prospective and current students to assist with unit selection.

Elements of this outline which may change with subsequent offerings of the unit include Content, Required Texts, Recommended Readings and details of the Assessment Tasks.

Students who are currently enrolled in this unit should obtain the outline for the relevant semester from the unit lecturer.

Unit code	BZ201	
Unit name	Data Analysis	
Associated higher education awards	Associate Degree in Business Bachelor of Business	
Duration	One semester	
Level	Intermediate	
Unit Coordinator	Karen du Plessis	
Core/Elective	Core - Associate Degree in Business Core - Bachelor of Business	
Weighting	Unit credit points: 10 Course credit points: 160 - Associate Degree in Business 240 - Bachelor of Business	
Student workload	Face to face on site	External
	Contact hours 39	Engagement with study materials 90
	Reading, study, and preparation 59	Assignment preparation 60
	Assignment preparation 52	TOTAL 150
	TOTAL 150	
Students requiring additional English language support are expected to undertake an additional 1 hour per week.		
Delivery mode	Face to face on site External	
Prerequisites/ Corequisites/ Restrictions	Prerequisite: BZ105 Information Systems for Business	
Specialist resource requirements	Practical applications in this unit require Microsoft Excel software and the Megastat add-in for Excel	
Prescribed text(s)	Selvanathan, A. Selvanathan, S., & Keller, G. (2011). <i>Business statistics: Abridged - Australia New Zealand</i> (5 th ed.). South Melbourne, VIC : Cengage Learning.	

<p>Recommended readings</p>	<p>Books</p> <p>De Feo, J., & Barnard, W. (2004). <i>Juran Institute's Six Sigma breakthrough and beyond</i>. New York : McGraw-Hill.</p> <p>Deming, W. E. (1993). <i>The new economics: For industry, government, education</i> (2nd ed.). MA: MIT Press.</p> <p>Gonick, L., & Smith, W. (1993). <i>Cartoon guide to statistics</i>. New York: HarperCollins Books.</p> <p>Nils-Goran, O., Jan, R., & Magnus, W. (1999). <i>Performance drivers – A practical guide to using the balanced scorecard</i>. New York : Wiley.</p> <p>Wheeler, D. J. (2000). <i>Understanding variation: The key to managing chaos</i> (2nd ed.). USA: SPC Press.</p> <p>In addition to the resources above, students should have access to a Bible, preferably a modern translation such as <i>The Holy Bible: The New International Version 2011</i> (NIV 2011) or <i>The Holy Bible: New King James Version</i> (NKJV).</p> <p>These and others translations may be accessed free on-line at http://www.biblegateway.com. The Bible app from LifeChurch.tv is also available free for smart phones and tablet devices.</p>
<p>Content</p>	<ol style="list-style-type: none"> 1. Overview and introduction to Excel; What is statistics? 2. Graphical descriptive methods 3. Art and science of graphical presentations 4. Numerical descriptive measures 5. Probability 6. Data collection and sampling 7. Random variables and discrete probability distributions 8. Continuous probability distributions 9. Statistical inference: an introduction 10. Sampling distributions 11. Estimation: Describing a single population 12. Simple Linear regression and correlation 13. Overview of Six Sigma and the balanced scorecard

<p>Learning outcomes</p>	<p>On completion of this unit, students will have demonstrated that they can:</p> <ol style="list-style-type: none"> 1. Discuss the steps involved in the identification and investigation of a business problem; 2. Independently create and interpret visual representations of data; 3. Calculate and independently interpret measures of central tendency and dispersion, and apply them in routine business and management problems; 4. Compute probabilities for mutually exclusive events, dependent and independent events and apply these to routine problems in business and management; 5. Describe the properties of the binomial, Poisson and normal distributions and independently apply them to routine problems in business and management; 6. Discuss statistical inferences based on both single and multiple random samples; 7. Describe the correlation between two sets of variables; 8. Describe the history of and concepts underlying the Six Sigma and Balanced Scorecard approaches to identifying and managing routine problems in business and management; 9. Discuss the Biblical Christian perspective on business with particular emphasis on ethical issues concerning the use of data in business and management; and 10. Communicate at an appropriate tertiary standard: with special attention to design elements, grammar, usage, logical relations, style, presentation and referencing.
<p>Assessment tasks</p>	<p>Task 1: Mid-semester examination</p> <p>Word Length/Duration: 2 hours</p> <p>Weighting: 20%</p> <p>Learning Outcomes: 1-4</p> <p>Assessed: Week 7</p> <p>Task 2: Ten weekly review exercises</p> <p>Word Length/Duration: 300 words (plus calculations) each</p> <p>Weighting: 30%</p> <p>Learning Outcomes: 1-7, 9, 10</p> <p>Assessed: Weeks 2-11</p> <p>Task 3: Final examination</p> <p>Word Length/Duration: 3 hours</p> <p>Weighting: 50%</p> <p>Learning Outcomes: 1-9</p> <p>Assessed: Week 15</p>