

School of Information Management

MMIM 582 BIG DATA AND BUSINESS INTELLIGENCE

Trimester Three 2013

COURSE OUTLINE

Names and Contact Details

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Trimester Dates

Monday 18th November 2013 – Friday 14 February 2014

Withdrawal from Course

1. Your fees will be refunded if you withdraw from this course on or before 29 November 2013.
2. The standard last date for withdrawal from this course is 28 January 2014. After this date, students forced to withdraw by circumstances beyond their control must apply for permission on an ‘*Application for Associate Dean’s Permission to Withdraw Late*’ including supporting documentation

The application form is available from either of the Faculty’s Student Customer Service Desks.

Class Times and Room Numbers

Dates: 21 November, 2013 to 13 February, 2014
Times: 5.40 to 7.30pm.
Venue: Room GBG05 Government Buildings

Course Content

The volume, velocity and variety of the data sources that make up “big data” are investigated in the context of the managerial and strategic perspectives of business intelligence. Big data and business

intelligence are critically explored in terms of security, privacy, sustainability and the future implications for organisations and society.

Date	Topic	Overview
L1 (21 Nov)	What is big data.	Explores the concepts of data and its origins. Discusses how data are turned into 'big data', how the phenomenon came into being and current theory.
L2	Discovering data	Looks at sources of data and the technologies involved in its extraction and use.
L3	Using data/data mining	How can big data be used to enhance an organisation? Is it just business analysis or is there more?
L4	Managing data	Special issues in the management of data. ASSESSMENT: Debate
L5 (19 Dec)	Business intelligence	What is business intelligence? Where does it come from, and what role does big data play?
Mid Term Break		
L6 (9 Jan)	Information issues	Covers issues accompanying the big data phenomenon, including security and privacy. ASSESSMENT - Report
L7	Data aggregation, profiling and surveillance.	Discussion of these issues – are they the problem or are the issues just hype?
L8	Commercialisation and valuation of big data and business intelligence	Explores how big data can become an income stream, or even a new business, as well as addressing big data marketing.
L9	Panel Discussion – Big Data and Government	Panel discussion with public sector experts on how big data can be used and managed in government today.
6 Feb	Waitangi Day	ASSESSMENT - Essay
L10	International big data	Discusses what is happening internationally with big data, the cloud and whether or not this is a problem.
L11	The big future	How is big data changing the way we do things? Is it making us better, more sustainable or something else?

Course Learning Objectives

- 1 Critically evaluate the structure and value of the big data phenomenon and understand how big data can be used in business and government.
- 2 Demonstrate an understanding of the sources and nature of data/big data, and outline the methods by which it can be converted into business intelligence.
- 3 Outline and discuss the management issues associated with big data analytics and the problems associated with its use and conversion into business intelligence.
- 4 Discuss critically the organisational and societal issues surrounding the use of big data sets, now and in the future.

Course Delivery

The course will be delivered in the form of twelve lecture/seminars. There will be class discussions during the lectures based on readings and Session Preparation Assignments (SPA's). To optimise the peer learning support process each student will be given a topic on which they will make an oral presentation in class. These class presentations will count for 20% of the total course grade. There will also be a debate focusing on course learning objectives, to encourage critical thinking and discussion skills.

Expected Workload

This is a 15 point course, one point should equate to 10 hours of work for a total of approximately 150 hours spread over a 15 week period, including in class time.

Group Work

The debate assessment (see details below) requires group work. It is anticipated this will involve a planning meeting between members of the team where tasks and a team argument will be developed and allocated, and some email correspondence between team members. Individual work will be necessary for each argument. There will be 10 minutes allocated in class before the debate for teams to discuss final strategy.

Other than this any group work will occur in class and will not contribute to course grades.

Readings

There is no set textbook for this course. Readings will be obtained from Internet and academic sources. Some may be handed out in class.

Materials and Equipment

Extensive use will be made of ProQuest and other online library databases to obtain current material. Student assignments will also be prepared from this information and care should be taken to ensure that only authoritative sources are used. Contemporary blogs and news sites may be used to support current arguments however, these should not be used where academic sources can be expected to be available and in all circumstances should be well established, authoritative and/or edited sources. Where necessary or appropriate, readings will be provided to students. Use will also be made of Blackboard software on the VUW website.

It is expected that students will have ready access to a personal computer as well as Internet access. This will be necessary for receiving and sending course related email, for accessing the course web site on Blackboard, and for other similar purposes. Please check the website regularly.

Assessment Requirements

Assessment items	Length	%	CLO(s)
1 Essay	(4000 words)	40%	1, 3,
2 Project Report	(3000 words)	30%	1, 2, 3, 4
3 Debate	(15 minutes/side)	10%	1,4
4 Individual Paper Analysis and Presentation	(15 minutes)	20%	1, 2, 3, 4

For due dates refer to schedule.

Quality Assurance Note

Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning objectives as required for accreditation and audit purposes. The findings may be used to inform changes aimed at improving the quality of FCA programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

Penalties

All assignment deadlines have been specified and will be assessed by the date and time recorded on the email to which the assignment was attached when submitted to the Paper Coordinator. Applications for extensions of time for assignments will not be entertained. There will be a 5% per day penalty for late delivery up to a maximum of 25% (5 days). Assignments delivered more than 5 days late will not be marked.

Mandatory Course Requirements

A minimum of 45% must be achieved for any assessment item.

Class Representative

A class representative will be elected in the first class, and that person's name and contact details made available to VUWSA, the Course Coordinator and the class. The class representative provides a communication channel to liaise with the Course Coordinator on behalf of students.

Communication of Additional Information

Communication of additional information on changes will be conveyed through Blackboard or by email to all class members.

Use of Turnitin (if applicable)

Student work provided for assessment in this course may be checked for academic integrity by the electronic search engine <http://www.turnitin.com>. Turnitin is an on-line plagiarism prevention tool which compares submitted work with a very large database of existing material. At the discretion of the Head of School, handwritten work may be copy-typed by the School and subject to checking by Turnitin. Turnitin will retain a copy of submitted materials on behalf of the University for detection of future plagiarism, but access to the full text of submissions will not be made available to any other party.

For the following important information follow the links provided:

Academic Integrity and Plagiarism

<http://www.victoria.ac.nz/home/study/plagiarism.aspx>

General University Policies and Statutes

Find key dates, explanations of grades and other useful information at

www.victoria.ac.nz/home/study

Find out about academic progress and restricted enrolment at

<http://www.victoria.ac.nz/home/study/academic-progress.aspx>

The University's statutes and policies are available at www.victoria.ac.nz/home/about/policy, except qualification statutes, which are available via the Calendar webpage at

<http://www.victoria.ac.nz/home/study/calendar.aspx> (See Section C).

Further information about the University's academic processes can be found on the website of the Assistant Vice-Chancellor (Academic) at

www.victoria.ac.nz/home/about_victoria/avcacademic/default.aspx

AVC (Academic) Website: information including: Conduct, Academic Grievances, Students with Impairments, Student Support

http://www.victoria.ac.nz/home/about_victoria/avcacademic/Publications.aspx

Faculty of Commerce and Administration Offices

<http://www.victoria.ac.nz/fca/studenthelp/>

Te Putahi Atawhai

Maori and Pacific Mentoring Programme

<http://www.victoria.ac.nz/tpa/>

Appendix A – Marking Schedules

ASSESSMENT: Essay – 40%

Topic: TBA

Student:

Marker:

Total Mark:

Date:

Item							Score
Depth and breadth of treatment							/25
Coverage of subject	0	2	4	6	8	10	
Conciseness	0	1	2	3	4	5	
Focus of topic	0	1	2	3	4	5	
Contribution	0	1	2	3	4	5	
Analytical handling							/15
Objectivity	0	1	2	3	4	5	
Logical development	0	1	2	3	4	5	
Integration	0	1	2	3	4	5	
Structure/Contents							/25
Quality of layout	0	1	2	3	4	5	
Introduction	0	1	2	3	4	5	
Conclusion/Summary	0	1	2	3	4	5	
Abstract and Body	0	2	4	6	8	10	
Style							/20
Readability	0	1	2	3	4	5	
Flow of ideas	0	1	2	3	4	5	
Maturity of treatment	0	1	2	3	4	5	
Spelling and grammar	0	1	2	3	4	5	
Referencing							/15
Quality of readings	0	1	2	3	4	5	
Extent of readings	0	1	2	3	4	5	
Citation and listing of sources	0	1	2	3	4	5	
Late penalty							
Total							/100

ASSESSMENT: Project Report – 30%

Students will be required to investigate an organisation in order to determine:

- What data sources are available to their organisations
- How their organisations use the data they collect
- What issues may surround the data their organisations collect
- What additional data their organisations could use in the future
- Critically analyse their organisations approach to data and comment

Format of Report:

The report should be submitted in paper and electronically before TBA. The report should be in report format, 12 point font, with an executive summary, contents, introduction, main text, conclusion and bibliography. References to be in APA style. Maximum word count 3,000 words not including references, but including everything else.

This is an individual assignment.

Item							Score
Depth and Breadth of Treatment							/20
Coverage of Subject	0	2	4	6	8	10	
Conciseness	0	1	2	3	4	5	
Focus of Topic	0	1	2	3	4	5	
Analytical Handling							/20
Objectivity	0	1	2	3	4	5	
Logical development	0	1	2	3	4	5	
Identification of Issues	0	1	2	3	4	5	
Relevance of Issues	0	1	2	3	4	5	
Structure and Content							/25
Executive Summary	0	1	2	3	4	5	
Introduction	0	1	2	3	4	5	
Main Body	0	1	2	3	4	5	
Conclusion	0	1	2	3	4	5	
Critical comparison	0	1	2	3	4	5	
Style							/20
Readability	0	1	2	3	4	5	
Flow of ideas	0	1	2	3	4	5	
Maturity of treatment	0	1	2	3	4	5	
Spelling and grammar	0	1	2	3	4	5	
Referencing							/15
Quality of readings	0	1	2	3	4	5	
Extent of readings	0	1	2	3	4	5	
Citation and listing of sources	0	1	2	3	4	5	
Late penalty							
Total							/100

ASSESSMENT: Debate – 10%

Date: TBA

Students will be divided into debating teams for an Oxford Style debate. An outline of the rules and roles of various members can be found at the following:

http://www.stgeorge.freesevers.com/guide_debate.htm

Each speaker will have three minutes to present their case. The team as a whole must also present a brief two page summary of the major argument points and sources used by each speaker (to be handed in before the debate commences). The debate will be judged by Marta and Tony Hooper.

Marks will be allocated as follows:

Individual performance out of 5:

1	Argument is poorly thought out, irrelevant or contradictory. No evidence of insight or analysis.
2	Argument is weak or contradictory. Analysis is superficial.
3	Argument shows relevant analysis and is consistent with the team line.
4	Good argument from a range of resources, well argued and fitting into the team line.
5	Compelling argument from a range of resources, influential towards the team argument and good rebuttal where relevant.

Group performance out of 5:

1	Presentation and arguments irrelevant and poorly thought out or contradictory. No consistency between members of team. Poor or no rebuttal.
2	Weak argument presented, poor consistency between members of the team. Some analysis of topic material.
3	Argument consistent across team members and relevant to the topic, evidence of good analysis of topic material.
4	Good argument presented with good consistency between team members, a range of resources clearly used.
5	Insightful and convincing argument from a wide range of resources presented, excellent team coordination and good rebuttal.

This assessment focuses primarily on learning objectives 1,4.

ASSESSMENT: Individual Paper Analysis and Presentation – 20%

Each student will critically analyse an allocated academic reading which is relevant to the weekly lecture topic. They will need to prepare a class presentation, not exceeding 15 minutes and lead a discussion of the reading.

A written summary of 1000 words should also be provided as the lecture commences, and electronically thereafter. Referencing should be APA style, summary should include a brief introduction, a critical commentary on the academic reading, including a brief summary of major points, and a conclusion. Marks will be allocated as follows:

Item	Mark	Total
Oral Presentation - Style		/25
Presentation is disorganised and has no apparent argument, no class discussion follows.	1	
Presentation is poor, some argument presented, some class discussion follows.	2	
Presentation is good, appropriate argument presented, reasonable class discussion follows. Visual aids are appropriate (where used).	3	
Presentation is concise and appropriate, all key themes are identified. Visual aids are good (where used), and good class discussion follows.	4	
Presentation is superior, clearly identifies all key themes, visual aids are superior (where used) and good discussion follows.	5	
Oral Presentation - Content		/25
Presentation is inferior or disorganised. No key themes identified. No argument identified.	1	
Presentation is poor. A few key themes identified. No apparent argument.	2	
Presentation is good. Key themes identified and some argument present.	3	
Presentation is good, key themes identified and critical argument present. May refer to other literature.	4	
All key themes identified, superior analysis presented with evidence of critical thinking. May refer to other relevant literature and draw comparisons.	5	
Written Summary - Style		/25
Written summary is inferior, disorganised and missing major sections.	1	
Written summary is poor, may be disorganised, major sections present. Some attempt at argument. Spelling and grammar poor.	2	
Written summary is to the point, argument flows logically. Adequate spelling and grammar.	3	
Written summary is concise, to the point, good argument and good spelling and grammar.	4	
Written summary is concise, to the point, argument is superior. Referencing is appropriate. Spelling and grammar is excellent.	5	
Written Summary - Content		/25

Written summary is inferior or disorganised. No key themes identified. No argument identified.	1	
Written summary is poor. A few key themes identified. No apparent argument.	2	
Written summary is good. Key themes identified and some argument present.	3	
Written summary is good, key themes identified and critical argument present.	4	
All key themes identified, superior analysis presented with evidence of critical thinking. May refer to other relevant literature and draw comparisons.	5	
Total		/100