Course Outline 2017
BUSMGT 712: BUSINESS ANALYTICS (15 POINTS)

Quarter 3 (1176)

Course Prescription
Focuses on fact-based and data-driven decision making in a volatile, uncertain, complex, and ambiguous (VUCA) world. Examines decision biases and tools to overcome decision making under VUCA, particularly through critical and structured thinking.

Goals of the Course
In this course, you will develop data management and analysis skills to assist you in solving real-world business problems. This course aims to

- establish principles and enhance your critical thinking skills,
- enrich your data analysis and statistical ability,
- introduce decision analysis tools and mechanisms, and
- enhance your computing skills in MS Excel.

Learning Outcomes
By the end of this course it is expected that students will be able to:

1. Identify suitable models and quantitative tools for analysing business problems;
2. Apply the skills necessary for the analysis of small to medium data sets of moderate complexities;
3. Extract important patterns from sets of data, transform them into information, and interpret the results effectively; and
4. Demonstrate an understanding of the concepts, tools, and practices including data collection techniques and common decision biases for effective data-driven managerial decision making.

Content Outline
The course will follow this sequence of topics. This course outline is tentative. The course will progress based on students' ability to learn and understand the concepts.

- Week 1 Course Introduction
- Week 2 Model Based Reality, Decision Making, Business Intelligence
- Week 3 Descriptive Models
- Week 4 Business Statistics
- Week 5 Review and Test I
- Week 6 Predictive Models – Regression (basic)
- Week 7 Predictive Models – Regression (advanced)

- Week 8 Predictive Models – Simulation
- Week 9 Prescriptive Models – Optimization
- Week 10 Review and Test II

Learning Resources

Required Text: Camm, J.D., Cochran, J.J., Fry, M. J., Ohlmann, J. W., Anderson, D. R., Sweeney, D. J., & Williams, T. A (2017) *Essentials of Business Analytics*. (2nd ed.). Stanford, CT: Cengage Learning. ISBN-13: 978-1-305-62773-4. ISBN-10:1-305-62773-3.

Computer software: Microsoft Excel (latest available version). No previous Excel experience is required. You will be guided throughout the course for the required skills.

All other course material will be made available via Canvas.

Teaching Staff

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Learning and Teaching

In this course, we will use lectures, tutorials, team-based learning sessions, group assignments, worked examples, and in-class exercises. In addition to attending 5.5 hours of classes each week, students should be prepared to spend about another ten hours per week on activities related to this course including required readings, lab work, assignments, and preparation for the tests.

Weekly Activities at a Glance

Our weekly activities (in general) are organized as follows.

1- **(Lecture)** A plenary session that reviews and explains the concepts/techniques of the weekly subject. It will be helpful to bring along your computers, but it is not compulsory.
2- **(Tutorial in the lab)** You will be assigned to a tutorial in a lab on either Tuesdays or Wednesdays. In this lab session, you will work through set tasks that have been designed to build the skills you need to be successful in the assessments for this course.
3- **(Labs)** These are additional supervised lab sessions where you will receive help with completing your individual assignments and other related queries.
4- **(TBL)** You will be assigned to one of the two Team Based Learning (TBL) sessions. In these sessions, you will engage in guided group work and discussions in order to apply the concepts, techniques, and skills you have learnt during the week to business scenarios and contexts. Short quizzes will be administered online before selected sessions.

Assignments

There will be three types of graded assignments:

- One individual assignment that you will need to complete and submit online.
- Group assignments that will be completed in your group during TBL sessions. You are expected to be well prepared prior to the TBL sessions in order to

contribute to the group discussions.

- Students will work in groups on a group project. The project will be presented in class during week 8 and 9. More details about the project will be provided in class.

Assessment

Individual Assignment (1 x 11%)	11%
Quizzes (4 x 1.5%)	6%
TBL Group Work (4 x 2%)	8%
Group Project	15%
Mid-term Test	25%
Final Test	35%
Total	100%

The broad relationship between assessments and the learning outcomes is as follows:

Learning Outcome	Individual Assignments	Group Work	Group Project	Quiz/Tests
1	x		x	X
2		x	x	
3		x	x	
4	x		x	x

Peer-review

Students will be required to participate in two rounds of peer-review. The first peer-review will take place after the first two graded TBL group work assignments and the second at the end of the course. Results will be released anonymously to group members and the teaching staff reserves the right to adjust individual grades based on the peer-review.

Inclusive Learning

Students are encouraged to discuss privately any issues or impairment-related requirements face-to-face and/or in written form with the Lecturer.

Student Feedback

The real value of any course is what you learn. This is best judged by you. We welcome and encourage any comments about the course, course materials, and/or assignments at any time in order to make this learning experience as enjoyable and valuable as possible. In addition, formative feedback will be requested mid-course and a formal evaluation will be conducted at the end of the course.

Academic Integrity

The University of Auckland will not tolerate cheating, or assisting others to cheat, and views cheating in coursework as a serious academic offence. The work that a student submits for grading must be the student's own work. Where work from other sources is used, it must be properly acknowledged and referenced. A student's assessed work may be reviewed against electronic source material using computerised detection mechanisms. Upon reasonable request, students may be required to provide an electronic version of their work for computerised review.

In the event of an unexpected disruption

We undertake to maintain the continuity and standard of teaching and learning in all your courses throughout the year. If there are unexpected disruptions, the University has contingency plans to ensure that access to your course continues and your assessment is fair, and not compromised. Some adjustments may need to be made in emergencies.