Course Outline

Code: BUS501
Title: Business Analytics and Statistics

School: Business
Teaching Session: Semester 2
Year: 2019
Course Coordinator: Dr Jenna Campton
Course Moderator: Associate Professor Timothy Lee

Please go to the USC website for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1 Description
This course explores the use of, and techniques used in, descriptive and predictive analytics. It covers elements of data discovery and collection, data quality, analysis and data sharing, and generalising data analytics results to wider business conclusions and decisions. It makes reference to IBM Cognos as an example of a business analytics tool, combined with IBM SPSS software, applied to a wide variety of business applications, including estimation and predictive analysis.

1.2 Field trips, WIL placements or activities required by professional accreditation
N/A

2. What level is this course?
500 level Advanced - Engaging with new discipline knowledge and skills at an advanced level or deepening existing knowledge and skills within a discipline. Independent application of knowledge and skills in unfamiliar contexts.

3. What is the unit value of this course?
12 units
4. **How does this course contribute to my learning?**

<table>
<thead>
<tr>
<th>Specific Learning Outcomes</th>
<th>Assessment tasks</th>
<th>Graduate Qualities or Professional Standards mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand the principles of business analytics and its relation to business intelligence; and applied statistical terminology and techniques.</td>
<td>1, 2 and 3</td>
<td>Creative and critical thinkers. Ethical.</td>
</tr>
<tr>
<td>Identify a business problem, nominate an appropriate business analytics approach to address the problem and apply that business analytics approach</td>
<td>1, 2 and 3</td>
<td>Knowledgeable.</td>
</tr>
<tr>
<td>Apply appropriate quantitative techniques for descriptive and predictive business analytics</td>
<td>2 and 3</td>
<td>Creative and critical thinkers.</td>
</tr>
<tr>
<td>Make reasoned decisions as to the appropriate data collection method(s) for specific business analytics applications</td>
<td>1 and 2</td>
<td>Creative and critical thinkers.</td>
</tr>
<tr>
<td>Apply computer technology in the solution of business analytics problems.</td>
<td>2 and 3</td>
<td>Empowered.</td>
</tr>
</tbody>
</table>

5. **Am I eligible to enrol in this course?**

Refer to the [USC Glossary of terms](https://www.usc.edu.au/glossary) for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1 **Enrolment restrictions**

Must be enrolled in a postgraduate program

5.2 **Pre-requisites**

Nil

5.3 **Co-requisites**

Nil

5.4 **Anti-requisites**

Nil

5.5 **Specific assumed prior knowledge and skills (where applicable)**

N/A

6. **How am I going to be assessed?**

6.1 **Grading scale**

Standard – High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL)

6.2 **Details of early feedback on progress**

From weeks 1-6 students will be given mini-practice quizzes to assess their knowledge of the weekly content from the lectures and tutorials. Weeks 1-3 practice quizzes will help to study for the week 4 graded quiz. Weeks 4-6 will help study for the week 7 graded quiz. It is expected that students will use this feedback to help identify topics in which they need to further study.
6.3 Assessment tasks

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Assessment Product</th>
<th>Individual or Group</th>
<th>Weighting %</th>
<th>What is the duration / length?</th>
<th>When should I submit?</th>
<th>Where should I submit it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Quiz/zes</td>
<td>Individual</td>
<td>20%</td>
<td>500 words</td>
<td>Weeks 4 and 7 inclusive</td>
<td>Quiz (Online Test)</td>
</tr>
<tr>
<td>2</td>
<td>Examination</td>
<td>Individual</td>
<td>30%</td>
<td>2 Hours</td>
<td>Week 10</td>
<td>In Class</td>
</tr>
<tr>
<td>3</td>
<td>Examination</td>
<td>Individual</td>
<td>50%</td>
<td>2 hours</td>
<td>Central examination period</td>
<td>Exam Venue</td>
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<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Assessment 1: In class quizzes

Goal: To demonstrate understanding of business analytics and statistics

Product: Quiz/zes

Format: This is an individual assessment. In Week 4 and Week 7, two online quizzes will be conducted in your enrolled tutorial. The Week 4 quiz will cover content from weeks 1-3 and the Week 7 quiz will assess content from weeks 4-6. Each quiz will comprise of 15 multiple choice questions and there is a 30-minute time limit. The quiz will assess content from the lectures, tutorials and textbook readings.

Criteria: Demonstrated understanding of business analytics and statistical concepts

Assessment Task 2: Examination

Goal: To undertake a business analytics approach to solve a set of business problems that require the use of appropriately selected business analytics approaches.

Product: Report

Format: This is an individual assessment. The exam will be held in the Lecture in Week 10 and assesses content covered from Weeks 5, 7, 8 & 9. The exam has two parts, the first part comprises multiple choice and true/false questions and the second part requires short answer responses.

Criteria: Use of appropriately selected business analytics approaches to solve a set of business problems.

Assessment Task 3: Final examination

Goal: To demonstrate understanding of business analytics and statistics

Product: Examination

Format: This is an individual assessment. A two-hour final examination will be held in the examination period and will consist of a set of 50 multiple choice questions.

Criteria: Demonstrated understanding of business analytics and statistics

7. Directed study hours

The directed study hours listed here are a portion of the workload for this course. A 12 unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Directed study hours may vary by location. Student workload is calculated at 12.5 learning hours per one unit.

<table>
<thead>
<tr>
<th>Location</th>
<th>Directed study hours for location:</th>
</tr>
</thead>
<tbody>
<tr>
<td>oncampus</td>
<td>Lecture (2 hours)</td>
</tr>
<tr>
<td></td>
<td>Tutorial/SPSS Computer Lab (1 hour)</td>
</tr>
</tbody>
</table>
8. What resources do I need to undertake this course?

Please note that course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Blackboard site. Please log in as soon as possible.

8.1 Prescribed text(s) or course reader

Please note that you need to have regular access to the resource(s) listed below as they are required:

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zikmund, W. G., Babin, B. J., Carr, J. C., &amp; Griffin, M.</td>
<td>2013</td>
<td><em>Business research methods</em></td>
<td>Cengage Learning Australia</td>
</tr>
</tbody>
</table>

*Note.* The library has access to these resources.

8.2 Specific requirements

N/A

9. How are risks managed in this course?

Health and safety risks for this course have been assessed as low. It is your responsibility as a student to review course material, search online, discuss with lecturers and peers, and understand the health and safety risks associated with your specific course of study. It is also your responsibility to familiarise yourself with the University’s general health and safety principles by reviewing the [online Health Safety and Wellbeing training module for students](#), and following the instructions of the University staff.

10. What administrative information is relevant to this course?

10.1 Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Blackboard, are electronically checked through SafeAssign. This software allows for text comparisons to be made between your submitted assessment item and all other work that SafeAssign has access to.

10.2 Assessment: Additional requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

a) The final mark is in the percentage range 47% to 49.4%
b) The course is graded using the Standard Grading scale
c) You have not failed an assessment task in the course due to academic misconduct
10.3 Assessment: Submission penalties
Late submission of assessment tasks will be penalised at the following maximum rate:

- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task's identified value) for the third day
- 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task.

Weekdays and weekends are included in the calculation of days late.
To request an extension, you must contact your Course Coordinator and supply the required documentation to negotiate an outcome.

10.4 Study help
In the first instance, you should contact your tutor, then the Course Coordinator. Additional assistance is provided to all students through Academic Skills Advisers. To book an appointment or find a drop-in session go to Student Hub.
Contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au

10.5 Links to relevant University policy and procedures
For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Administration of Central Examinations
- Deferred Examinations
- Student Academic Misconduct
- Students with a Disability

Visit the USC website: http://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching

10.6 General Enquiries
In person:

- USC Sunshine Coast - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- USC SouthBank - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- USC Gympie - Student Central, 71 Cartwright Road, Gympie
- USC Fraser Coast - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- USC Caboolture - Student Central, Level 1 Building J,Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890
Email: studentcentral@usc.edu.au
### Appendix 1  Course content

<table>
<thead>
<tr>
<th>Week # / Module #</th>
<th>What key concepts/content will I learn?</th>
<th>Directed Study Activities: teaching components</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to business intelligence and business analytics; the business research process</td>
<td>Lecture</td>
</tr>
<tr>
<td>2</td>
<td>Business problem definition; secondary and primary data</td>
<td>Lecture Tutorial</td>
</tr>
<tr>
<td>3</td>
<td>Observation and experimental research in business</td>
<td>Lecture Tutorial</td>
</tr>
<tr>
<td>4</td>
<td>Measurement concepts and determination of sample size</td>
<td>Lecture Tutorial</td>
</tr>
<tr>
<td>5</td>
<td>Getting started with data analysis; descriptive analytics</td>
<td>Lecture Tutorial</td>
</tr>
<tr>
<td>6</td>
<td>Academic skills: Exam preparation</td>
<td>Lecture Tutorial</td>
</tr>
<tr>
<td>7</td>
<td>Non-parametric procedures</td>
<td>Lecture Tutorial</td>
</tr>
<tr>
<td>8</td>
<td>Comparing means: T-Tests</td>
<td>Lecture Tutorial</td>
</tr>
<tr>
<td>9</td>
<td>Comparing means: ANOVA</td>
<td>Lecture Tutorial</td>
</tr>
<tr>
<td>10</td>
<td>Consultation</td>
<td>Lecture</td>
</tr>
<tr>
<td>11</td>
<td>Predictive analytics: correlation and simple linear regression</td>
<td>Lecture Tutorial</td>
</tr>
<tr>
<td>12</td>
<td>Business analytics</td>
<td>Lecture Tutorial</td>
</tr>
<tr>
<td>13</td>
<td>Review and revision week</td>
<td>Lecture Tutorial</td>
</tr>
</tbody>
</table>

Please note that the course activities may be subject to variation.

**Mid Semester Break:**
30th September 2019-6th October 2019 (Between Week 10 and Week 11)

**Public Holidays**
Queen’s Birthday- Monday 7th October (Week11)