Business and Economics

BUSAN 300 : Data Wrangling (15 POINTS)

2021 Semester One

Course Prescription

Organisations are increasingly adopting big data analysis, predictive analytics, social data mining, and deep machine learning to gain business intelligence and insight. The value of such technologies relies on having high-quality data, yet raw data is messy and its transformation to add value is often neglected. Students will explore a data wrangling toolbox to add value to data.

Course Overview

This course aims to provide you with a data management toolbox that is applicable to business data among disciplines and industries; to develop your skills in analytical thinking, programmatic problem solving, and business communication; to build up your proficiency in making raw data valuable and meaningful for a business audience; and to expose you to the digital data life-cycle model.

Course Requirements

Prerequisite: 15 points from BUSAN 201, INFOMGMT 292, INFOSYS 222 Restriction: INFOMGMT 390

Capabilities Developed in this Course

Capability 1:   Disciplinary Knowledge and Practice
Capability 2:   Critical Thinking
Capability 3:   Solution Seeking
Capability 4:   Communication and Engagement
Capability 5:   Independence and Integrity
Capability 6:   Social and Environmental Responsibilities

Graduate Profile: Bachelor of Commerce

Learning Outcomes

By the end of this course, students will be able to:

1. Recognise, comprehend, and consume data in various structures and formats (Capability 1 and 2)

2. Source and extract web data with potential relevance and insight for a business problem (Capability 1 and 3)
3. Clean and profile data to holistically evaluate its veracity and usefulness (Capability 1 and 3)
4. Transform data from one format and location to another for downstream consumption (Capability 1)
5. Document wrangling processes and communicate them for a business audience (Capability 1 and 4.2)
6. Plan, design, execute and report independently on an integration of public data of New Zealand or global public interest (Capability 1, 5.1 and 6)

Assessments

Assessment Type	Percentage	Classification
Assignments	25%	Individual Coursework
Project	10%	Individual Coursework
Tests	65%	Individual Test
3 types	100%	

Assessment Type	Learning Outcome Addressed					
	1	2	3	4	5	6
Assignments	✔	✔	✔	✔		
Project		✔	✔	✔	✔	✔
Tests	✔		✔	✔	✔	

To pass this course, you must attempt and pass all tests (i.e. the combined score of all tests is at least 32.5 out of 65) and the course overall (i.e. the combined score of all assessments is at least 50 out of 100)

Workload Expectations

This course is a standard 15 point course and students are expected to spend 10 hours per week involved in each 15 point course that they are enrolled in.

For this course, you can expect 3 hours of lectures and 7 hours of reading and thinking about the content and work on assignments and/or test preparation.

Delivery Mode

Campus Experience

Attendance is required at scheduled activities including labs to complete components of the course.
Lectures will be available as recordings.
Attendance on campus is required for the test and exam.
The activities for the course are scheduled as a standard weekly timetable.

Learning Resources

This course may require students to use the following software/tools:

Microsoft Excel or Google Sheets

Visual Studio Code or Atom or Notepad++ or TextWrangler or other text editor

Firefox Developer Tools or Chrome DevTools

MongoDB and Robo3T

wget or curl

OpenRefine

Pentaho Data Integration (PDI) Community Edition

SQL Server Express or other relational database compatible with PDI

All the learning resources used in this course are available online for free to students enrolled in the course. Links to resources will be provided in Canvas.

Student Feedback

At the end of every semester students will be invited to give feedback on the course and teaching through a tool called SET or Qualtrics. The lecturers and course co-ordinators will consider all feedback and respond with summaries and actions.

Your feedback helps teachers to improve the course and its delivery for future students.

Class Representatives in each class can take feedback to the department and faculty staff-student consultative committees.

Digital Resources

Course materials are made available in a learning and collaboration tool called Canvas which also includes reading lists and lecture recordings (where available).

Please remember that the recording of any class on a personal device requires the permission of the instructor.

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, reflecting their learning. Where work from other sources is used, it must be properly acknowledged and referenced. This requirement also applies to sources on the internet. A student's assessed work may be reviewed against online source material using computerised detection mechanisms.

Inclusive Learning

All students are asked to discuss any impairment related requirements privately, face to face and/or in written form with the course coordinator, lecturer or tutor.

Student Disability Services also provides support for students with a wide range of impairments, both visible and invisible, to succeed and excel at the University. For more information and contact details, please visit the Student Disability Services' website http://disability.auckland.ac.nz

Special Circumstances

If your ability to complete assessed coursework is affected by illness or other personal circumstances outside of your control, contact a member of teaching staff as soon as possible before the assessment is due.

If your personal circumstances significantly affect your performance, or preparation, for an exam or eligible written test, refer to the University's aegrotat or compassionate consideration page https://www.auckland.ac.nz/en/students/academic-information/exams-and-final-results/during-exams/aegrotat-and-compassionate-consideration.html.

This should be done as soon as possible and no later than seven days after the affected test or exam date.

Learning Continuity

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. You will be kept fully informed by your course co-ordinator, and if disruption occurs you should refer to the University Website for information about how to proceed.

Student Charter and Responsibilities

The Student Charter assumes and acknowledges that students are active participants in the learning process and that they have responsibilities to the institution and the international community of scholars. The University expects that students will act at all times in a way that demonstrates respect for the rights of other students and staff so that the learning environment is both safe and productive. For further information visit Student Charter https://www.auckland.ac.nz/en/students/forms-policies-and-guidelines/student-policies-and-guidelines/student-charter.html.

Disclaimer

Elements of this outline may be subject to change. The latest information about the course will be available for enrolled students in Canvas.

In this course you may be asked to submit your coursework assessments digitally. The University reserves the right to conduct scheduled tests and examinations for this course online or through the use of computers or other electronic devices. Where tests or examinations are conducted online remote invigilation arrangements

may be used. The final decision on the completion mode for a test or examination, and remote invigilation arrangements where applicable, will be advised to students at least 10 days prior to the scheduled date of the assessment, or in the case of an examination when the examination timetable is published.