



University
of Otago
ŌTĀKOU WHAKAIHU WAKA

ACCT 360

Advanced Accounting Analytics

Course Outline | Whakamārama Akoraka

Semester Two 2024



Department of Accountancy and Finance

Otago Business School – Te Kura Pakihi

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Nau Mai Haere Mai

Welcome | Afio Mai | Aere Mai | Mālō e me'a mai | Fakatalofa atu | Bula | Fakalofa lahi atu | Ulu tonu mai

Course Description and Aims | *Whāinga o te Akoranga*

What we teach

ACCT 360 aims to provide students with advanced topics in accounting analytics with an understanding of, and ability to analyse financial and non-financial data to make informed decisions. Particular emphasis is placed on applying contemporary tools for accountants such as Power BI and Alteryx to identify business problems, analyse, forecast and visualise data.

Prerequisites – ACCT 260 (ACFI 299) and a further 72 200-level points.

Learning Outcomes | *Hua Akoranga*

What you Learn

Upon successful completion of this paper, you should be able to:

- 1) Enhance capabilities to integrate and apply analytical techniques and accounting knowledge to identify business problems.
- 2) Critically evaluate the suitability of data and apply advanced techniques to prepare it for further analysis.
- 3) Use judgment to select and apply appropriate analytical tools such as Power BI and Alteryx in contexts.
- 4) Demonstrate competence in identifying and applying descriptive, diagnostics, predictive and prescriptive techniques to analyse, determine cause, make forecasts, and recommend course of action.
- 5) Enhance capabilities to incorporate financial and non-financial information to draw conclusions and translate insights into concrete business actions.
- 6) Efficiently and effectively visualise and communicate results of data analyses to stakeholders to provide actionable insights that address business problems.

Teaching Team | *Kaiako*

Paper Coordinator & Lecturer

Name: Dr Hoa Luong
Office: OBS 414
Email: hoa.luong@otago.ac.nz
Office Hours: Tue 2-3 pm; Thu: 4-5 pm

Head Tutor

Name: Yaseen Hezam
Office: OBS 5.20
Email: yaseen.hezam@postgrad.otago.ac.nz
Office hour: By appointment

Tutor

Name: Saif Saidalavi Choyi Valappil
Office: OBS 4.08A
Email: chosa256@student.otago.ac.nz
Office hour: By appointment

Course Information | *Mōhiohio akoranga*

How we teach

Lecture:

A1: Monday	12-2 pm	ACAL
A2: Monday	3-5 pm	ACAL

Computer lab:

A2: Tuesday	3-5 pm	ACAL
A3: Wednesday	1-3 pm	OBS118
A4: Wednesday	3-5 pm	ACAL

Students are encouraged to attend one lecture and one computer lab each week to learn by doing various tasks designed to develop their skills. If a student misses a class, it is their responsibility to catch up on what happened during the class and take steps to learn the material. A student missing a class should not expect extra help during subsequent classes.

The course calendar details semester dates, lectures and computer labs, readings, and assessment-related scheduling information.

Learning Resources | *Rauemi Ako*

Textbook

Richardson, V., Teeter, R. A., & Terrell, K. L. (2022). *Data analytics for accounting* (3rd edition). NY, US: McGraw-Hill.

Blackboard

<https://blackboard.otago.ac.nz/> provides you with access to course materials, class notices, and resources. Blackboard is used to email the whole class so it is important that you check your student email and *Blackboard* regularly.

Course Calendar | *Maramataka*

Your academic road map

Week	Contents	Tools & Practice	Assessments
1 Mon 15 Jul	Advanced Accounting Analytics overview IMPACT model Reading: Chapter 1	Alteryx: <i>Getting started</i> <i>Data cleansing, organisation and reduction</i>	Lab assignment (1), by 5 pm on Sunday
2 Mon 22 Jul	Mastering data Chapter 2	Alteryx: <i>Summarisation, function and formulas</i>	Lab assignment (2), by 5 pm on Sunday
3 Mon 29 Jul	Using accounting, non-accounting data and analytics models to solve business problems Reading: Chapter 3	Alteryx: <i>Combining data and parsing data</i>	Lab assignment (3), by 5 pm on Sunday
4 Mon 5 Aug	The modern accounting environment and accounting automation Reading: Chapter 5	Alteryx: <i>Transforming data, automation and dynamic process</i>	Lab assignment (4), by 5 pm on Sunday
5 Mon 12 Aug	Revision - Practice Test	Help sessions	
6 Mon 19 Aug	Lab Test (1)		
7 Mon 26 Aug	Audit analytics Reading: Chapter 6	Power BI: <i>Evaluate trends and outliers</i> <i>Internal controls weaknesses</i> <i>Fuzzy Matching</i> <i>Sampling analysis</i>	Lab assignment (5), by 5 pm on Sunday
Mid Semester Break			
8 Mon 9 Sep	Management accounting analytics Reading: Chapter 7	Power BI: <i>Job costs and variances</i> <i>Balanced scorecard</i>	Lab assignment (6), by 5 pm on Sunday

9	Mon 16 Sep	Financial accounting analytics Reading: Chapter 8	<i>Power BI & Alteryx:</i> <i>Vertical analysis</i> <i>Horizontal analysis</i> <i>Sentiment analysis</i>	Lab assignment (7), by 5 pm on Sunday
10	Mon 23 Sep	Tax analytics Advanced techniques Reading: Chapter 9	<i>Alteryx:</i> <i>Sales and use tax allocation</i> <i>Predictive analytics</i> <i>Prescriptive analytics</i>	Lab assignment (8), by 5 pm on Sunday
11	Mon 30 Sep	Guest lecture	Group presentation	Group report due by 2 pm on Tuesday
12	Mon 7 Oct	Revision - Practice Test	Help sessions	
13	Mon 14 Oct	Lab Test (2)		

Assessments | *Aromatawai*

Assessment	Due date	% of final grade
Lab assignments	See course calendar	15
Lab Test (1)	Week 6	25
Group assignment	Week 11	25
Lab Test (2)	Week 13	35

Details of the assessment tasks follow:

1) Lab assignments (15%):

There are 8 lab assignments. The **best 5** lab assignments (3% each week) **will count for 15%** of your total course grade.

2) Lab tests (60%):

The **two** practical tests **will count for 60%** of your total course grade. Each lab test will be based on knowledge and skills developed in the module.

3) Group assignment: presentation and report (25%)

Group assignment is an opportunity for students to replicate the process in which accountants use analytical skills to identify and analyse a business situation. Students will apply techniques learned as the course progresses.

Consistent with the Guidelines for the Assessment of Student Performance, each group member will be graded for their individual contribution to group task results. Group assignment will be discussed in more detail.

Aligning Learning Outcomes with Assessments

Learning Outcome	Lab assignments	Lab Test 1	Group assignment	Lab Test 2
1) Enhance capabilities to integrate and apply analytical techniques and accounting knowledge to identify business problems.	√	√	√	√
2) Critically evaluate the suitability of data and apply advanced techniques to prepare it for further analysis.	√	√	√	√
3) Use judgment to select and apply appropriate analytical tools including Power BI, Alteryx and Tableau in contexts.	√	√	√	√
4) Demonstrate competence in identifying and applying descriptive, diagnostics, predictive and prescriptive techniques to analyse, determine cause, make forecasts and recommend course of action.	√	√	√	√
5) Enhance capabilities to incorporate financial and non-financial information to draw conclusions and translate insights into concrete business actions.	√	√	√	√
6) Efficiently and effectively visualise and communicate results of data analyses to stakeholders to provide actionable insights that address business problems.	√	√	√	√
Total	15%	25%	25%	35%

Grading System

The grading scheme used at Otago is:

A+	90-100	C+	60-64
A	85-89	C	55-59
A-	80-84	C-	50-54
B+	75-79	D	40-49
B	70-74	E	<40
B-	65-69		

Other requirements

Late Assignments and Special Consideration: Late Assignments are not accepted. On certain grounds (e.g., illness or bereavement) a student may request and obtain prior permission for a late submission. Special consideration is given on a case-by-case basis and must be requested from the course coordinator prior to the assessment deadline.

Signed Declaration Sheet: All assessed work **must have a signed Declaration Sheet** stapled or glued to the group assignment. If there is no declaration sheet, the submitted work will **NOT** be marked. The Declaration Sheet are found on Blackboard.

Records of internal assessment: internal assessment grades will be entered on Evision throughout the course. You should check that the recording of your marks is correct. If there are any problems with the recording, please see the Course Coordinator as soon as possible. Please retain all your assessed pieces of work throughout the semester, so that you can verify your marks should any problems occur.

Expectations and Workload | *Te Nui o te Mahi*

This course conforms to the 18-point course format comprising approximately 180 hours spent in class, private study, preparing assignments, and other activities.

We expect you to come to each session of lectures and workshops prepared. You should have pens, paper, and a networked device.

Course Requirements | *Ko ngā whakataunga me ngā paearu*

To successfully complete the course, students must have:

- 1) participated in group presentation and report;
- 2) achieved at least 50% of the sum of Lab test 1 and Lab test 2.

Referencing | *Tohutoro*

In this course, we accept any referencing style listed on the University Library website. Referencing showcases your commitment to academic integrity and respect for other scholars' work. Accurate referencing not only demonstrates your scholarly diligence but also enables readers to trace the sources you've used, enriching the academic conversation.

To master the referencing style, visit the University Library website for comprehensive style guides: http://otago.libguides.com/citation_styles.

Academic Integrity | *Pono-ā-wānanga*

Academic integrity means being honest in your studying and assessments. It is the basis for ethical decision-making and behaviour in an academic context. Academic integrity is informed by the values of honesty, trust, responsibility, fairness, respect and courage. Students are expected to be aware of, and act in accordance with, the University's Academic Integrity Policy.

Academic Misconduct, such as plagiarism or cheating, is a breach of Academic Integrity and is taken very seriously by the University. Types of misconduct include plagiarism, copying, unauthorised collaboration, submitting work written by someone else (including from a file sharing website, text generation software, or purchased work) taking unauthorised material into a test or exam, impersonation, and assisting someone else's misconduct. A more extensive list of the types of academic misconduct and associated processes and penalties is available in the University's Student Academic Misconduct Procedures.

It is your responsibility to be aware of and use acceptable academic practices when completing your assessments. To access the information in the Academic Integrity Policy and learn more, please visit the University's Academic Integrity website at www.otago.ac.nz/study/academicintegrity, or ask at the Student Learning Centre (HEDC) or the Library, or seek advice from your paper co-ordinator.

For further information:

Academic Integrity Policy

<http://www.otago.ac.nz/administration/policies/otago116838.html>

Student Academic Misconduct Procedures

<http://www.otago.ac.nz/administration/policies/otago116850.html>

Class Representatives | *Māngai mō te Akoranga*

The class (or student) representative system is an avenue for encouraging communication and consultation between staff and students. It provides you with a vehicle for communicating your views on the teaching and delivery of the course and provides staff with an opportunity to communicate information and gain constructive feedback from students. It contributes to developing a sense of community within a department and adds a further dimension to the range of support services offered to students.

Volunteers for class representatives will be called early in the semester. The OUSA invites all class representatives to a training session conducted by OUSA about what it means to be a class representative, and some of the possible procedures for dealing with issues that

arise. They also provide information on the services that OUSA offers and the role OUSA can play in solving problems that may occur. The OUSA provides support to class representatives during the semester. Department staff will also meet with class representatives during the semester to discuss general issues or matters they wish to have considered.

Your class representative's name and contact details will be posted on Blackboard early in the semester.

Disclaimer | *Kupu Whakatonu*

While every effort is made to ensure that the information contained in this document is accurate, it is subject to change. Changes will be notified in class and via Blackboard. Students are encouraged to check Blackboard regularly. It is the student's responsibility to be informed.