UNSW Course Outline

ACCT5972 Accounting Analytics for Business Decision Making - 2024

Published on the 25 Aug 2024

General Course Information

Course Code : ACCT5972
Year : 2024
Term : Term 3
Teaching Period : T3
Is a multi-term course? : No
Faculty : UNSW Business School
Academic Unit : School of Accounting, Auditing and Taxation
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Postgraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

Analytics combined with accounting data is at the heart of most forward-looking corporate decisions. Investment bankers, equity research analysts, portfolio managers, credit analysts, lenders, and capital market regulators rely on accounting data to identify investment

opportunities, assess business risks, and negotiate business contracts. This course will help you gain basic understanding of how professionals use analytics tools to leverage accounting data to produce significant insights and make meaningful predictions. Most importantly, you will learn how accounting analytics are applied in real-world business contexts, such as quantitative investing, financial fraud prediction, earnings forecasting, etc. You will use numerous real-word case studies in lectures, tutorials, and assessments to reinforce your learnings.

Course Aims

To develop students' analytical mindset and abilities to:

a. Ask the right questions;

b. Extract, transform and load relevant data;

c. Apply appropriate data analytical techniques; and

d. Interpret results

e. Communicate the results with stakeholders.

Relationship to Other Courses

As long as you can quickly understand business terminologies, there is no prerequisite for this course.

Course Learning Outcomes

Course Learning Outcomes	Program learning outcomes
CLO1 : Explain the importance of data analytics in contemporary business contexts and developing an appropriate analytical mindset.	
CLO2 : Ability to identify and define business problems.	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication
CLO3 : Extract the right data from different sources to solve accounting and business problems.	
CLO4 : Select and apply the appropriate analytical tools to generate insights in accounting and business contexts.	
CLO5 : Visualize and translate insights into concrete actions that businesses can take.	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO5 : Responsible Business Practice
CLO6 : Work effectively both individually and in teams to communicate accounting and business insights to a specific audience and to inform, persuade or decide on the best course of action.	

Course Learning Outcomes	Assessment Item
CLO1 : Explain the importance of data analytics in contemporary business contexts and developing an appropriate analytical mindset.	• Assessment 1: Online Quizzes • Assessment 2: Seminar Participation • Assessment 3: Case Study • Assessment 4: Assignment
CLO2 : Ability to identify and define business problems.	• Assessment 1: Online Quizzes • Assessment 2: Seminar Participation • Assessment 3: Case Study • Assessment 4: Assignment
CLO3 : Extract the right data from different sources to solve accounting and business problems.	• Assessment 1: Online Quizzes • Assessment 2: Seminar Participation • Assessment 3: Case Study • Assessment 4: Assignment
CLO4 : Select and apply the appropriate analytical tools to generate insights in accounting and business contexts.	• Assessment 2: Seminar Participation • Assessment 3: Case Study • Assessment 4: Assignment
CLO5 : Visualize and translate insights into concrete actions that businesses can take.	• Assessment 2: Seminar Participation • Assessment 3: Case Study • Assessment 4: Assignment
CLO6 : Work effectively both individually and in teams to communicate accounting and business insights to a specific audience and to inform, persuade or decide on the best course of action.	• Assessment 2: Seminar Participation • Assessment 3: Case Study • Assessment 4: Assignment

Learning and Teaching Technologies

Moodle - Learning Management System

Learning and Teaching in this course

At UNSW, the focus is on self-directed search for knowledge. Classes, readings, assessments and other resources are all provided to help you learn. You are therefore encouraged to attend all classes and read all required readings to fully grasp and appreciate the concepts of accounting analytics for business decision making.

Please note that according to the UNSW Student Responsibility and Conduct Workload policy, you are expected to spend at least 10 hours studying for a course per week. It is up to you to choose how much work you do in each part of the course: preparing for classes; completing assignments; studying for exams; and seeking assistance or extra work to extend and clarify your understanding. You must choose an approach that best suits your learning style and goals in this course. Seminar questions and self-study questions are provided to guide your learning process.

Additional Course Information

Analytics combined with accounting data lies at the core of pivotal business decisions. Investment bankers, equity research analysts, portfolio managers, credit analysts, lenders, and capital market regulators rely heavily on accounting data to identify investment opportunities, assess business risks, and negotiate business contracts.

This course is designed to furnish you with a foundational comprehension of how analytics tools can be harnessed by professionals to extract profound insights and generate meaningful forecasts from accounting data. Emphasis will be placed on practical applications of accounting analytics in real-world business scenarios, including quantitative investing, financial fraud detection, and earnings forecasting.

Throughout the course, a multitude of real-world case studies will be employed during lectures, tutorials, and assessments to reinforce your understanding. Additionally, popular programming languages such as Python and SQL will be utilized to undertake various analytical exercises. While no prior coding experience is assumed, participants are encouraged to acquaint themselves with fundamental concepts of Python and SQL

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates	Program learning outcomes
Assessment 1: Online Quizzes Assessment Format: Individual	20%	Start Date: Not Applicable Due Date: Not Applicable	• PLO1 : Business Knowledge • PLO2 : Problem Solving
Assessment 2: Seminar Participation Assessment Format: Individual	10%	Start Date: Not Applicable Due Date: Not Applicable	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication
Assessment 3: Case Study Assessment Format: Group	20%	Start Date: Not Applicable Due Date: See Moodle Announcement	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication
Assessment 4: Assignment Assessment Format: Individual	50%	Start Date: Not Applicable Due Date: 23/11/2023 12:00 AM	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO4 : Teamwork

Assessment Details

Assessment 1: Online Quizzes

Assessment Overview

Quizzes are set to facilitate students' understanding of business knowledge and skills required for conducting data analytics.

Assesses: PLO1, PLO2

Course Learning Outcomes

- CLO1 : Explain the importance of data analytics in contemporary business contexts and developing an appropriate analytical mindset.
- CLO2 : Ability to identify and define business problems.
- CLO3 : Extract the right data from different sources to solve accounting and business problems.

Detailed Assessment Description

Quizzes are set to facilitate students' understanding of business knowledge and skills required for conductig data analytics. Quizzes are held in class through an online platform. Topics covered in each quiz are as follows:

- Quiz 1 (10%) - Week 5- All required readings and tutorial activities from Weeks 1 to 4 (inclusive)
- Quiz 2 (10%) - Week 10 - All required readings and tutorial activities from Weeks 5 to 9 (inclusive)

Assessment Length

20 minutes each

Submission notes

NA

Assessment information

NA

Assignment submission Turnitin type

Not Applicable

Generative AI Permission Level

No Assistance

This assessment is designed for you to complete without the use of any generative AI. You are not permitted to use any generative AI tools, software or service to search for or generate information or answers.
For more information on Generative AI and permitted use please see here.

Assessment 2: Seminar Participation

Assessment Overview

Seminar participation aims to help students efficiently learn knowledge and skills and to allow them to positively contribute to the learning experience of their cohort.

Assesses: PLO1, PLO2, PLO3

Course Learning Outcomes

- CLO1 : Explain the importance of data analytics in contemporary business contexts and developing an appropriate analytical mindset.
- CLO2 : Ability to identify and define business problems.
- CLO3 : Extract the right data from different sources to solve accounting and business problems.
- CLO4 : Select and apply the appropriate analytical tools to generate insights in accounting and business contexts.
- CLO5 : Visualize and translate insights into concrete actions that businesses can take.
- CLO6 : Work effectively both individually and in teams to communicate accounting and business insights to a specific audience and to inform, persuade or decide on the best course of action.

Detailed Assessment Description

Seminar participation aims to help students efficiently learn knowledge and skills and to allow them to positively contribute to the learning experience of their cohort.

Assessment Length

NA

Submission notes

NA

Assessment information

Not Applicable

Assignment submission Turnitin type

Not Applicable

Generative AI Permission Level

No Assistance

This assessment is designed for you to complete without the use of any generative AI. You are not permitted to use any generative AI tools, software or service to search for or generate information or answers.
For more information on Generative AI and permitted use please see here.

Assessment 3: Case Study

Assessment Overview

The case study provides an opportunity for students to apply the knowledge and skill acquired in a business case. This application process will deepen their learnings and enhance their ability to help each other in a team.

Assesses: PLO1, PLO2, PLO3, PLO4

Course Learning Outcomes

- CLO1 : Explain the importance of data analytics in contemporary business contexts and developing an appropriate analytical mindset.
- CLO2 : Ability to identify and define business problems.
- CLO3 : Extract the right data from different sources to solve accounting and business problems.
- CLO4 : Select and apply the appropriate analytical tools to generate insights in accounting and business contexts.
- CLO5 : Visualize and translate insights into concrete actions that businesses can take.
- CLO6 : Work effectively both individually and in teams to communicate accounting and business insights to a specific audience and to inform, persuade or decide on the best course of action.

Detailed Assessment Description

The assessment comprises group and individual components. The case study provides an opportunity for students to apply the knowledge and skill acquired in a business case. This application process will deepen their learnings and enhance their ability to help each other in a team.

Assessment Length

Details provided later

Submission notes

WORD/PDF

Assessment information

NA

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

Generative AI Permission Level

Planning/Design Assistance

You are permitted to use generative AI tools, software or services to generate initial ideas, structures, or outlines. However, you must develop or edit those ideas to such a significant extent that what is submitted is your own work, i.e., what is generated by the tool, software or service should not be a part of your final submission. You should keep copies of your iterations to show your Course Authority if there is any uncertainty about the originality of your work.
If your Convenor has concerns that your answer contains passages of AI-generated text or media that have not been sufficiently modified you may be asked to explain your work, but we recognise that you are permitted to use AI generated text and media as a starting point and some traces may remain. If you are unable to satisfactorily demonstrate your understanding of your submission you may be referred to UNSW Conduct & Integrity Office for investigation for academic misconduct and possible penalties.
For more information on Generative AI and permitted use please see here.

Assessment 4: Assignment

Assessment Overview

The assessment allows students to independently apply the knowledge and skills in a comprehensive way to solve a real business problem.

Assesses: PLO1, PLO2

Course Learning Outcomes

- CLO1 : Explain the importance of data analytics in contemporary business contexts and developing an appropriate analytical mindset.
- CLO2 : Ability to identify and define business problems.
- CLO3 : Extract the right data from different sources to solve accounting and business problems.
- CLO4 : Select and apply the appropriate analytical tools to generate insights in accounting

and business contexts.
- CLO5 : Visualize and translate insights into concrete actions that businesses can take.
- CLO6 : Work effectively both individually and in teams to communicate accounting and business insights to a specific audience and to inform, persuade or decide on the best course of action.

Detailed Assessment Description

The assessment allows students to independently apply the knowledge and skills in a comprehensive way to solve a real business problem.

Assessment Length

Details provided later

Submission notes

WORD/PDF

Assessment information

NA

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students do not see Turnitin similarity reports.

Generative AI Permission Level

Planning/Design Assistance

You are permitted to use generative AI tools, software or services to generate initial ideas, structures, or outlines. However, you must develop or edit those ideas to such a significant extent that what is submitted is your own work, i.e., what is generated by the tool, software or service should not be a part of your final submission. You should keep copies of your iterations to show your Course Authority if there is any uncertainty about the originality of your work.
If your Convenor has concerns that your answer contains passages of AI-generated text or media that have not been sufficiently modified you may be asked to explain your work, but we recognise that you are permitted to use AI generated text and media as a starting point and some traces may remain. If you are unable to satisfactorily demonstrate your understanding of your submission you may be referred to UNSW Conduct & Integrity Office for investigation for academic misconduct and possible penalties.
For more information on Generative AI and permitted use please see here.

General Assessment Information

As a student at UNSW you are expected to display academic integrity in your work and interactions. Where a student breaches the UNSW Student Code with respect to academic integrity, the University may take disciplinary action under the Student Misconduct Procedure. To assure academic integrity, you may be required to demonstrate reasoning, research and the process of constructing work submitted for assessment.

To assist you in understanding what academic integrity means, and how to ensure that you do comply with the UNSW Student Code, it is strongly recommended that you complete the Working with Academic Integrity module before submitting your first assessment task. It is a free, online self-paced Moodle module that should take about one hour to complete.

You are expected to complete all assessment tasks for your courses in the School of Accounting, Auditing & Taxation. In some courses, there will be a minimum pass mark required on the final exam due to the need to assure individual mastery of specific course learning outcomes for accounting accreditation requirements. Where applicable this is explained in the assessment section of this course outline.

Grading Basis

Standard

Requirements to pass course

In order to pass this course, you must:

- achieve a composite mark of at least 50 out of 100;
- meet any additional requirements described in the Assessment Summary section.

You are expected to attempt all assessment requirements in the course.

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 9 September - 15 September	Topic	Introduction to accounting analytics
Week 2 : 16 September - 22 September	Topic	Mastering accounting data: Storage, extraction and transformation
Week 3 : 23 September - 29 September	Topic	Data cleaning and descriptive analysis
Week 4 : 30 September - 6 October	Topic	Modelling accounting data: A/B testing, classification, and regression methods
Week 5 : 7 October - 13 October	Lecture	Accounting analytics for quantitative investing
Week 6 : 14 October - 20 October	Project	This is a class-free week. It is recommended that you use the week to advance your group project.
Week 7 : 21 October - 27 October	Topic	Detecting financial reporting frauds
Week 8 : 28 October - 3 November	Lecture	Forecasting corporate earnings
Week 9 : 4 November - 10 November	Topic	Analysing textual disclosures
Week 10 : 11 November - 17 November	Topic	Advanced topics in accounting analytics

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

General Schedule Information

The teaching of the this course will be organized in the format of lectures and seperate tutorials. Lectures start from Week 1 and tutorials start from week 2. In a certain week's tutorial, the lecturer/tutor will first breifly summarize the main contents of the lecture of the previous week, and then lead the analysis of cases/materials related to those contents.

Course Resources

Recommended Resources

We will use the Anaconda distribution of the Python language for demonstrations, tutorial exercises, and assessments. You can download and install Anaconda from https://www.anaconda.com/.

We will use the Pandas package as our primary data management tool. You can find a short introduction to Pandas here https://pandas.pydata.org/docs/getting_started/intro_tutorials/.

We also encourage you to use generative AI (e.g., ChatGPT) to help you understand the concepts of data analystics and develop your coding skills.

Additional Costs

All software used in this course can be accessed for free.

Course Evaluation and Development

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey, which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

Each year feedback is sought from students and other stakeholders about the courses offered in the School and continual improvements are made based on this feedback. UNSW's myExperience survey is one of the ways in which student evaluative feedback is gathered. In this course, we will seek your feedback through end of semester myExperience responses. Based on past terms' survey, the teaching team has made some significant changes which include:

- adding topics that are important to our stakeholders;
- simplifying the assessment of the course, and
- developing an assignment more relevant to business practice.
- Change the previous seminar format into lectures with seperate tutorials.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Zihang (Ryan) Peng		Room 3059 Quadrangle BLD		Wednesday 1pm - 2pm	No	Yes
Lecturer	Leye (Leonard) Li					No	No
Tutor	Yuchen Zhang					No	No

Other Useful Information

Academic Information

COURSE POLICIES AND SUPPORT

The Business School expects that you are familiar with the contents of this course outline and the UNSW and Business School learning expectations, rules, policies and support services as listed below:

- Program Learning Outcomes

- Academic Integrity and Plagiarism
- Student Responsibilities and Conduct
- Special Consideration
- Protocol for Viewing Final Exam Scripts
- Student Learning Support Services

Further information is provided on the key policies and support page.

Students may not circulate or post online any course materials such as handouts, exams, syllabi or similar resources from their courses without the written permission of their instructor.

STUDENT LEARNING OUTCOMES

The Course Learning Outcomes (CLOs) – under the Outcomes tab – are what you should be able to demonstrate by the end of this course, if you participate fully in learning activities and successfully complete the assessment items.

CLOs also contribute to your achievement of the Program Learning Outcomes (PLOs), which are developed across the duration of a program. PLOs are, in turn, directly linked to UNSW graduate capabilities. More information on Coursework PLOs is available on the key policies and support page. For PG Research PLOs, including MPDBS, please refer to the UNSW HDR Learning Outcomes.

Academic Honesty and Plagarism

As a student at UNSW you are expected to display academic integrity in your work and interactions. Where a student breaches the UNSW Student Code with respect to academic integrity, the University may take disciplinary action under the Student Misconduct Procedure. To assure academic integrity, you may be required to demonstrate reasoning, research and the process of constructing work submitted for assessment.

To assist you in understanding what academic integrity means, and how to ensure that you do comply with the UNSW Student Code, it is strongly recommended that you complete the Working with Academic Integrity module before submitting your first assessment task. It is a free, online self-paced Moodle module that should take about one hour to complete.

Submission of Assessment Tasks

SPECIAL CONSIDERATION

You can apply for special consideration when illness or other circumstances beyond your control interfere with your performance in a specific assessment task or tasks, including online exams. Students studying remotely who have exams scheduled between 10pm and 7am local time, are also able to apply for special consideration to sit a supplementary exam at a time outside of these hours.

Special consideration is primarily intended to provide you with an extra opportunity to demonstrate the level of performance of which you are capable. To apply, and for further information, see Special Consideration on the UNSW Current Students page.

Special consideration applications will be assessed centrally by the Case Review Team, who will update the online application with the outcome and add any relevant comments. The change to the status of the application immediately sends an email to the student and to the assessor with the outcome of the application.

Please note the following:

1. Applications can only be made through Online Services in myUNSW (see the UNSW Current Students page). Applications will not be accepted by teaching staff. The lecturer-in-charge/ course coordinator will be automatically notified when your application is processed.
2. Applying for special consideration does not automatically mean that you will be granted a supplementary exam or other concession.
3. If you experience illness or misadventure in the lead up to an exam or assessment, you must submit an application for special consideration, either prior to the examination taking place, or prior to the assessment submission deadline, except where illness or misadventure prevent you from doing so.
4. If your circumstances stop you from applying before your exam or assessment due date, you must apply within 3 working days of the assessment or the period covered by your supporting documentation.
5. Under the UNSW Fit To Sit/Submit rule, if you sit the exam/submit an assignment, you are declaring yourself well enough to do so and are cannot subsequently apply for special consideration.
6. If you become unwell on the day of – or during – an exam, you must stop working on your exam, advise your course coordinator or tutor and provide a medical certificate dated within 24 hours of the exam, with your special consideration application. For online exams, you must contact your course coordinator or tutor immediately via email, Moodle or chat and advise them you are unwell and submit screenshots of your conversation along with your medical certificate and application.
7. Special consideration requests do not allow the awarding of additional marks to students.

Further information on Business School policy and procedure can be found under “Special Consideration” on the key policies and support page.

LATE SUBMISSION PENALTIES

For assessments other than examinations, late submission will incur a penalty of 5% per day or part thereof (including weekends) from the due date and time. An assessment will not be accepted after 5 days (120 hours) of the original deadline unless special consideration has been approved. An assignment is considered late if the requested format, such as hard copy or electronic copy, has not been submitted on time or where the ‘wrong’ assignment has been submitted.

For assessments which account for 10% or less of the overall course grade, and where answers are immediately discussed or debriefed, the LIC may stipulate a different penalty. Details of such late penalties will be available on the course Moodle page.

FEEDBACK ON YOUR ASSESSMENT TASK PERFORMANCE

Feedback on student performance from formative and summative assessment tasks will be provided to students in a timely manner. Assessment tasks completed within the teaching period of a course, other than a final assessment, will be assessed and students provided with feedback, with or without a provisional result, within 10 working days of submission, under normal circumstances. Feedback on continuous assessment tasks (e.g. laboratory and studio-based, workplace-based, weekly quizzes) will be provided prior to the midpoint of the course.

Faculty-specific Information

PROTOCOL FOR VIEWING FINAL EXAM SCRIPTS

UNSW students have the right to view their final exam scripts, subject to a small number of very specific exemptions. The UNSW Business School has set a protocol under which students may view their final exam script. Individual schools within the Faculty may also set up additional local processes for viewing final exam scripts, so it is important that you check with your School.

If you are completing courses from the following schools, please note the additional school-specific information:

- Students in the **School of Accounting, Auditing & Taxation** who wish to view their final examination script should also refer to this page.

- Students in the **School of Banking & Finance** should also refer to this page.
- Students in the **School of Information Systems & Technology Management** should also refer to this page.

COURSE EVALUATION AND DEVELOPMENT

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey, which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

QUALITY ASSURANCE

The Business School is actively monitoring student learning and quality of the student experience in all its programs. A random selection of completed assessment tasks may be used for quality assurance, such as to determine the extent to which program learning goals are being achieved. The information is required for accreditation purposes, and aggregated findings will be used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential.

TEACHING TIMES AND LOCATIONS

Please note that teaching times and locations are subject to change. Students are strongly advised to refer to the Class Timetable website for the most up-to-date teaching times and locations.

School Contact Information

The policies regarding staff contact in the School of Accounting, Auditing and Taxation are as follows:

- All questions regarding course administration should be directed to the Lecturer-in-charge.
- The full-time staff will be available for consultation starting from Weeks 2 to 10 and STUVAC period.
- Consultation hours will be advised on the course Moodle page in a consolidated timetable.
- Students are encouraged to consult with staff during online consultation sessions. Consultation will not be provided via email or phone.
- Consultation times during STUVAC period will likely vary to the regular consultation during Term and be posted on the course webpage later in the Term.

While emails to staff should be a rare occurrence as noted above, in instances where it is warranted, please make sure that:

- You use your UNSW email address when corresponding with the teaching staff on this course. Emails from other addresses (such as Hotmail, Gmail, Yahoo, 126, QQ, etc.) are not accepted and will not be replied to.
- You must use an appropriate communication level with staff. Emails and discussion forum posts that use short-hand and "Texting" language are not acceptable, and communication must be in English. If your email cannot be understood then staff will not reply.
- You must identify yourself by your full name, student ID and tutorial day and time.
- Please be aware that Staff will not necessarily reply to students to inform them if their emails are non-compliant.
- Full-time teaching staff only answer emails during regular working hours of Monday to Friday 9am-5pm. Tutoring staff often have other jobs and require 48 hours within regular business office hours to reply to emails.

Complaints about the assessment and other aspects of this course should be directed in the first instance to the Lecturer-in-Charge (or Course Convenor) and if still unsatisfied with the response received then you are directed to contact the School of Accounting, Auditing & Taxation Grievance Officer, details available here: https://www.unsw.edu.au/business/our-schools/accounting-auditing-taxation/contact-us