

	ANU College of Business and Economics	Research School of Accounting
Mail	Building 26C Australian National University Canberra ACT 2601	Building 21 Australian National University Canberra ACT 2601
Student Office	Room 2.01 (Level 2) ANU CBE Building 26C	Room 2037 (Level 2) Hanna Neumann Building 21
Phone	Within 1300 732 120 (local call cost only) Australia +61 2 6125 3807 International	02 6125 0025 +61 2 6125 0025
Fax	Within 02 6125 0744 Australia +61 2 6125 0744 International	02 6125 4310 +61 2 6125 4310
Email	info.cbe@anu.edu.au	enquiries.rsa@anu.edu.au

BUSN3051

Accounting Analytics

Accounting analytics develops new insights and understanding of financial and non-financial performance by continuous iterative examination of large data sets pertaining to past financial and non-financial information and events. This course aims to equip students with skills to analyse accounting data to address accounting-related problems. Students are expected to obtain an understanding of different types of data analytics methods, and how to apply these methods to analyse accounting-related problems.

Course URL	http://programsandcourses.anu.edu.au/2017/course/BUSN3051
Mode of Delivery	On campus
Prerequisites	To enrol in this course students must have completed 96 units towards a degree, including BUSN2011 Management Accounting.
Incompatible Courses	N/A
Co-taught Course	BUSN7051 Accounting Analytics Graduate students attend joint classes with undergraduates but are assessed separately.
Course Convenor	Professor Susanna Ho
Phone	+61 2 6125 3589
Office Location	PAP Moran Building, Room 2059
Email	Susanna.ho@anu.edu.au

Office hours for student consultation	To be announced on the Wattle course site
Research Interests	Susanna joined the ANU in 2008. She completed her PhD in the Hong Kong University of Science and Technology in 2004. Her doctoral dissertation examined how web personalisation influences the behaviour of online users and her current research portfolio reflects a continuing interest in this area. She worked in the University of Melbourne from 2004 to 2007. Her research focuses on the area of human computer interaction, electronic commerce, technology adoption, and electronic government.
Student Administration	Room 2037 Hanna Neumann Building 21 enquiries.rsa@anu.edu.au +61 2 6125 0025 or 6125 7968 Office Hours: Monday-Friday 9-5 pm

SEMESTER 2

2017

COURSE OVERVIEW

Learning Outcomes

Upon successful completion of the requirements for this course, students will be able to:

1. Identify useful sources of financial and non-financial data that help accountants' decision-making.
2. Understand concepts, and use current applications, of typical accounting analytics methods.
3. Learn from accounting case studies to gain an understanding of the opportunities and challenges brought by large financial and non-financial data set.
4. Use analytics techniques to interpret accounting data, analyse business environments, and develop solutions for authentic (real world and ill-defined) problems in accounting processes.
5. Interpret and effectively communicate the findings of accounting analytics to both specialists and non-specialists.
6. Demonstrate an understanding of contemporary accounting analytics relevant to accountants' work in professional contexts.

Assessment Summary

Assessment Task	Value	Due Date	Date for Return of Assessment	Linked Learning Outcomes
1. Individual assignments	25%	See p.5	Within 2 weeks after submission	1, 2, 3, 4, 5, 6
2. Mid-semester exam	20%	Week 7		1, 2, 4, 5, 6
3. Final exam	55%	TBA		1, 2, 4, 5, 6

Research-Led Teaching

This course aims to prepare students to be a junior “researcher”. To achieve this aim, we will adopt research-led teaching approach, which reflects and makes use of the lecturer’s disciplinary research to benefit student learning and outcomes.

The following activities help achieve the above aim.

- The discussions in class will be problem solving based. Students will be given a set of business cases and/or industry problems and apply critical thinking to solve the problems.
- Students will use accounting analytics skills to process firms’ datasets and come up with business recommendations. In doing so, students will acquire critical analysis, teamwork and communication skills.

Feedback

Staff Feedback

Students will receive written comments for their assignments, and verbal comments on their learning progress throughout the course.

Student Feedback

ANU is committed to the demonstration of educational excellence and regularly seeks feedback from students. One of the key formal ways students have to provide feedback is through Student Experience of Learning Support (SELS) surveys. The feedback given in these surveys is anonymous and provides the Colleges, University Education Committee and Academic Board with opportunities to recognise excellent teaching, and opportunities for improvement.

For more information on student surveys at ANU and reports on the feedback provided on ANU courses, go to:

<http://unistats.anu.edu.au/surveys/self/students/> and
<http://unistats.anu.edu.au/surveys/self/results/learning/>

Policies

ANU has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University's academic standards, and implement them. You can find the University's education policies and an explanatory glossary at: <http://policies.anu.edu.au/>

Students are expected to have read the [Academic Misconduct Rule](#) before the commencement of their course.

Other key policies include:

- Student Assessment (Coursework) Policy
- (https://policies.anu.edu.au/ppi/document/ANUP_004603)
- Student Assessment (Coursework) Procedure
- (https://policies.anu.edu.au/ppi/document/ANUP_004604)
- Student Surveys and Evaluations
- (https://policies.anu.edu.au/ppi/document/ANUP_004601)
- Copyright (<http://copyright.anu.edu.au/>)

Examination material or equipment

In both mid-semester and end-of-semester examinations, students are allowed to bring one A4 paper (with notes on one side only) to the examination hall.

READING LISTS

- ACCA (The Association of Chartered Certified Accountants) and IMA (Institute of Management Accountants) (2013) Big Data: Its Power and Perils. Available at <http://www.accaglobal.com/bigdata>
- Alles, M. (2015) "Drivers of the Use and Facilitators and Obstacles of the Evolution of Big Data by the Audit Profession", *Accounting Horizons*, 29(2), pp. 439-449.
- Howson, C. (2013), *Successful Business Intelligence, Second Edition: Unlock the Value of BI & Big Data*, McGraw-Hill Education; 2 edition (November 5, 2013) (ISBN-10: 007180918X; ISBN-13: 978-0071809184)

- KPMG (2013) Data Analytics for Internal Audit. Available at <https://www.kpmg.com/ch/en/library/articles-publications/documents/advisory/ch-pub-20150922-data-analytics-internal-audit-en.pdf>
- Minelli, M., Chambers, M., & Dhiraj, A. (2012) Big Data, Big Analytics: Emerging Business Intelligence and Analytic Trends for Today's Businesses, John Wiley & Sons, (ISBN-10: 1118239156, ISBN-13: 9781118239155)
- Vasarhelyi, M., Kogan, A. & Tuttle, B. (2015) "Big Data in Accounting: An Overview", Accounting Horizons, 29(2), pp. 381-396.
- Warren, J., Moffitt, K. & Byrnes, P. (2015) "How Big Data Will Change Accounting", Accounting Horizons, 29(2), pp. 397-407.

COURSE SCHEDULE

Week	Summary of Activities	Assessment *
1	Introduction to accounting analytics	
2	Traditional accounting data analysis and its limitations	
3	Tools and techniques for accounting analytics	Assignment 1 [5%] Due
4	Production planning: optimization and sensitivity analysis (1)	
5	Production planning: optimization and sensitivity analysis (2)	Assignment 2 [5%] Due
6	Revenue cycle analytics (1): forecasting sales demand	
7	Mid-semester examination	20%
8	Revenue cycle analytics (2): clustering analysis	Assignment 3 [5%] Due
9	Expenditure cycle analytics: rule induction and decision tree	Assignment 4 [5%] Due
10	Forensic accounting applications	
11	Auditing: Processing unstructured data	Assignment 5 [5%] Due
12	Ethics related to accounting analytics	
	Examination period	

* All assignments are due on Monday 5pm.

ASSESSMENT REQUIREMENTS

The ANU is using Turnitin to enhance student citation and referencing techniques, and to assess assignment submissions as a component of the University's approach to managing Academic Integrity. For additional information regarding Turnitin please visit the [ANU Online](#) website.

Students may choose not to submit assessment items through Turnitin. In this instance you will be required to submit, alongside the assessment item itself, copies of all references included in the assessment item.

Any student identified, either during the current semester or in retrospect, as having used ghost writing services will be investigated under the University's Academic Misconduct Rule.

Assignment

Details of the assignments will be provided in Week 1.

Assignment submission

Online Submission: Assignments are submitted using Turnitin in the course Wattle site. You will be required to electronically sign a declaration as part of the submission of your assignment. Please keep a copy of the assignment for your records.

Extensions and penalties

Extensions and late submission of assessment pieces are covered by the [Student Assessment \(Coursework\) Policy and Procedure](#).

The Course Convenor may grant extensions for assessment pieces that are not examinations or take-home examinations. If you need an extension, you must request in writing on or before the due date. If you have documented and appropriate medical evidence that demonstrates you were not able to request an extension on or before the due date, you may be able to request it after the due date.

No submission of assessment tasks without an extension after the due date will be permitted. If an assessment task is not submitted by the due date, a mark of 0 will be awarded.

Returning assignments

Student work is returned through Wattle or emails within two weeks after submission.

RESUBMISSION OF ASSIGNMENTS

We do not accept resubmission of assignments.

REFERENCING REQUIREMENTS

Refer to the ANU Academic Integrity guidelines: <http://www.anu.edu.au/students/learning-development/academic-integrity>. Before submitting the assignments, students must use Turnitin to check the originality of the writing.

EXAMINATIONS

Both the mid-semester exam and the end-of-semester exam are compulsory. More information will be provided on Wattle after the semester starts.

Scaling

Your final mark for the course will be based on the **raw** marks allocated for each of your assessment items. However, your final mark may not be the same number as produced by that formula, as marks may be **scaled**. Any scaling applied will preserve the rank order of raw marks (i.e. if your raw mark exceeds that of another student, then your scaled mark will exceed the scaled mark of that student), and may be either up or down.

Privacy Notice

The ANU has made a number of third party, online, databases available for students to use. Use of each online database is conditional on student end users first agreeing to the database licensor's terms of service and/or privacy policy. Students should read these carefully.

In some cases student end users will be required to register an account with the database licensor and submit personal information, including their: first name; last name; ANU email address; and other information.

In cases where student end users are asked to submit 'content' to a database, such as an assignment or short answers, the database licensor may only use the student's 'content' in accordance with the terms of service – including any (copyright) licence the student grants to the database licensor.

Any personal information or content a student submits may be stored by the licensor, potentially offshore, and will be used to process the database service in accordance with the licensors terms of service and/or privacy policy.

If any student chooses not to agree to the database licensor's terms of service or privacy policy, the student will not be able to access and use the database. In these circumstances students should contact their lecturer to enquire about alternative arrangements that are available.

SUPPORT FOR STUDENTS

The University offers a number of support services for students. Information on these is available online from <http://www.anu.edu.au/students/communities-events>