



*MISSION: To develop a unique business school identity which is distinctive in the marketplace and provides a clear value proposition for students. This will be achieved by embedding the themes of entrepreneurship and innovation, digitalisation and data within our programs and embracing sustainability, work integrated learning and a commitment to social justice.*

## OVERVIEW

### Course Description

Business Information Systems are considered a key business resource as a platform to process and deliver information that can be used strategically by organisations to improve operational value and efficiency. This course introduces various types of information systems in an organisation, how information is processed in business information systems, and how huge volume of accounting, financial, marketing or human resource data can be transformed into actionable decision support information. The ultimate aim of the course is to develop technology-oriented skills relevant to the job profile of a Systems Analyst (or Business Analyst) and students will gain technical problem-solving skills for different business functions. The knowledge would facilitate the development of advanced business information systems skills enabling students with potential business analyst's capabilities to analyse, design, adopt, develop, improve and evaluate different information systems for business operation such as business analytics systems for managers; data and knowledge management systems, and e-business systems for operation management.

The course expedites the development of technological understanding in organisations and this enables students to capture organisational information processing requirements for managing effective strategic, operational, tactical goals and their improvement. Students will make use of software and employ techniques to understand and learn how information or data can be analysed, processed, and utilised for business decision making. Ethical and privacy issues surrounding the use of business technologies in organisations will also be addressed in this course.

### Contact Hours

#### Lecture/Workshop

Face to Face On Campus

Two (2) hour/(s) lecture and One (1) hour workshop per Week for Full Term

Students are expected to complete 4 hours of guided learning via online preparation, lectures, interactive workshops, tutorials, discussion groups or self-directed learning and an additional 6 hours of independent study per week.

### Contact Hour Requirement

There is a compulsory attendance requirement in this course.	1 hour workshop per Week for Full Term	All students must participate in 80% of all <b>workshop activities</b> in this course.
--	--	--

Students can check-in using the app or advise the academic staff member at the commencement of the session if they need the staff member to check-in on their behalf. All students' attendance will be recorded using the myUON app. Please note: The 80% attendance requirement applies to **ALL** students enrolled in 1000 level courses.

### Unit Weighting

10

### Workload

Students are required to spend on average 120-140 hours of effort

# COURSE OUTLINE

(contact and non-contact) including assessments per 10 unit course.

**Please refer to the course CANVAS site for details of teaching staff for ALL course offerings. The primary contact for courses is the Course Coordinator, whose details are listed on the course CANVAS site.**

**Student Consultation** A minimum of one (1) hour of consultation per week. Please see course CANVAS site for details of time and location.

**Course Learning Outcomes** **On successful completion of this course, students will be able to:**

1. Understand the core principles and definitions of Business Information Systems.
2. Recognise how Business Information Systems collect and process to support business decisions.
3. Evaluate the role of Information Systems in supporting management decision-making in the areas of accounting, finance, marketing, and human resource management.
4. Describe the ethical procedure and issues when handling personal information in Information Systems.

## ASSESSMENT DETAILS

This course has 3 assessments. Each assessment is described in more detail in the sections below:

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Mid-term Quiz	Week 7, in class	Individual	20%	1, 2
2	Assignment – Case Study	Week 11	Group	30%	1, 2, 3
3	Final Examination	Formal Exam Period	Individual	50%	1, 2, 3, 4

**Please note: students are advised that all assessments must be submitted in English. Assessment items not submitted in English will receive a mark of zero.**

**Results of individual assessment items and final results, including those provided via the Learning Management System (LMS) are ‘unofficial results’ until they are confirmed as finalised by the School Assessment Body and the Head of School or delegate. Finalised results are released directly to students on the Fully Graded Date of the relevant Semester/Trimester.**

### Time referenced is time in Newcastle NSW

<b>Late Submissions</b>	The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. <b>Note:</b> this applies equally to week and weekend days.
-------------------------	--

### Assessment 1 – Mid-term Quiz

<b>Assessment Type</b>	Mid-term Quiz
<b>Purpose</b>	The purpose of the quiz is to assess student’s learning progression at a primary stage. The completion of multiple-choice based quiz provides an early immersion of student’s learning and encouragement with opportunity to utilise feedback on student learning and achieving their comprehension.
<b>Description</b>	The quiz will cover materials from week 1 to 6 and relevant textbook chapters. There will be a model quiz paper unloaded on CANVAS site, prior to the quiz. Students are not allowed to use any materials or textbooks during the class quiz in week 7. As indicated each multiple-choice question will be aligned with the topic for weeks 1-6.
<b>Weighting</b>	20%
<b>Length</b>	50 minutes
<b>Due Date</b>	Week 7 (during workshop session)
<b>Submission Method</b>	In class
<b>Assessment Criteria</b>	Quiz will be based on multiple choice questions which will be online-administered and a fully integrated MCQ examination that will be delivered in 50 min session. You are to choose correct answer out of four (4) alternatives in the quiz.
<b>Return Method</b>	In class
<b>Feedback Provided</b>	In class

## Assessment 2 – Case Study Assessment

<b>Assessment Type</b>	Written scope report submission
<b>Purpose</b>	The purpose of this assessment is to develop group work and learn to analyse business information systems problems in organisations.
<b>Description</b>	Students will be appointed to groups of three (3) to analyse and prepare a report and presentation in week 11. This assignment can be called a scoping study that will provide insights of business requirements and a needs analysis, as the prime step in developing or acquiring business information systems. The ultimate aim is to conduct teamwork for analysing the given case context (see CANVAS) for proposing alternative digital systems solutions or latest technological provisions with recommendations to a client. Your role is defined as a trainee/graduate consultant in your team of an international consulting company. The company has been in operation for 20 years providing business analysis, system requirement analysis and information technology consultant services as well as for recommending information solutions for meeting various demands of business enterprises, using various latest technologies such as cloud computing, IoT, mobile computing, data analytics and other known data sensing and processing tools. Your report comprises an analysis of the business problem and requirements analysis of different technologies leading to the provision of alternative recommendations for feasible technology-oriented solutions. The report should use the template provided (see CANVAS) and must be submitted via CANVAS site by the due time. The presentation (10 minutes duration and a total of 8 slides) must include PowerPoints or similar visual aids and be loaded onto the Discussion Board immediately prior to the presentation.
<b>Weighting</b>	30%
<b>Length</b>	2500-word report plus a 10-minute presentation
<b>Due Date</b>	Week 11
<b>Submission Method</b>	In class
<b>Assessment Criteria</b>	The case study (scoping report) and your presentations will be assessed using a rubric (see CANVAS) that will give details of the criteria and relevant aspects. <b>Please note:</b> Self and Peer Assessment: A single mark is given for the group assignment. This mark will then be moderated by "self and peer assessment" using the SPARKPlus software so that individual group members may receive different marks. Any moderated individual mark received by each group member is based on contribution to the assignment and, more importantly the ability to work with others. Individually group members are required to submit a self and peer assessment through SPARK within 24 hours of the due date. Failure to complete SPARK will result in a mark of zero. The criteria for the self and peer assessment are found along with the instructions on how to use SPARK on CANVAS. Please note: <b>NO SPARK NO MARK.</b>
<b>Return Method</b>	Gradebook
<b>Feedback Provided</b>	Written and in class

## Assessment 3 – Final Examination

<b>Assessment Type</b>	Formal Examination
<b>Purpose</b>	The examination will assess the overall learning outcomes from the course and reflections based on the other assignments of the course.
<b>Description</b>	The final examination will consist of scenario dilemmas, short answer and problem-solving questions relevant to entire coverage from week 1 to 12. For preparation, there will be a mock-up exam paper uploaded on the CANVAS, 1 week prior to the final exam. This course has a <b>RESTRICTED OPEN BOOK</b> examination. A memory aid is permitted. The memory aid is a single double sided A4 sheet of handwritten or typed notes for use during the examination. Note: memory aids must be left on the examination table and cannot be removed from the examination venue.
<b>Weighting</b>	50%
<b>Length</b>	120 minutes
<b>Due Date</b>	Formal Exam Period
<b>Submission Method</b>	Online
<b>Assessment Criteria</b>	Similar to the assessment rubrics for assignments except responses to the scenario dilemmas are written not orally presented.
<b>Return Method</b>	Online
<b>Feedback Provided</b>	Gradebook will be opened for students to see their feedback after the final course results have been approved.

# SYLLABUS

## Course Content

### Topics in the course include but are not limited to the following:

1. Business IS and different ICT applications and their impact in organisations;
2. Organisational strategy, competitive advantage, and information systems;
3. Information security, information fraud, issues of governance, ethics and privacy;
4. Data modelling, relational database, Big Data;
5. Business intelligence, data analytics and monitoring tools for business information management;
6. ICT systems and emerging technologies: Block Chain, Robotic Automation and Virtual Reality Systems;
7. FinTech, E-Business and E-Commerce;
8. Wireless, IoT, mobile computing, cloud functionalities and mobile commerce;
9. AI, machine learning and smart technologies in business;
10. Data-driven methods and prediction technologies;
11. Systems development and project management of business solutions such as accounting information systems and evaluating impact and deployment outcome;
12. Smart technologies (drone applications in business operation), digital systems in organisations for value adding.

## Course Materials

### Required text:

**Note this is an E-Textbook. Students must purchase the book. Please refer to CANVAS for details.**

Rainer, R. K., & Prince, B. (2021). *Introduction to information systems*. John Wiley & Sons.

**ISBN:** 9781119761464

Wigand, R. T., Mertens, P., Bodendorf, F., König, W., & Schumann, M. (2003). *Introduction to business information systems*. Springer Science & Business Media.

**ISBN:** 978-3540003366

An additional Readings list will be provided on the course CANVAS site.

# SCHEDULE

Week	Topic	Class Preparation	Assessment
1	Introduction to Information Systems	Chapter 1	Quiz, topic overview and readings Class Introductions Course content and tools overview with discussions on overall assessments
2	Organisational Strategy, Competitive Advantage and Information Systems	Chapter 2	Class quiz, topic overview and readings Group formation and group contracts, SAP-design thinking, and assignment discussion
3	Information Security, Information Fraud, Issues of Governance, Ethics and Privacy	Chapters 3 & 4 See link to additional reading under Course Readings	Practical case studies, topic overview and readings, group consolidation and contracts, discussion on group assignment
4	Data modelling, Relational database, Big Data	Chapters 4 & 5 See link to additional reading under Course Readings	Practical exercise, topic overview and readings, group consolidation and contracts, discussion on group assignment
5	Business Intelligence, Data Analytics and monitoring tools for Business Information Management	Chapter 5	Practical exercises, class quiz, topic overview and readings Software package introductions for business data processing
6	ICT Systems and Emerging Technologies: Block Chain, Robotic Automation and Virtual Reality Systems	See link to additional reading under Course Readings	Reflection and Exercise using lab software package for business data processing
7	FinTech, Online payment methods, E-Business and E-Commerce	Chapter 7	<b>Assessment 1 due:</b> mid-term Quiz
8	Wireless, IoT, Mobile Computing, Cloud Functionalities and Mobile Commerce	Chapter 8 See link to additional reading under Course Readings	Topic overview and readings presentations; practical exercise, topic overview and lab exercises
9	AI, Machine Learning and Smart technologies in business	Chapters 8 & 9	Practical case studies, How ML works in Python environment as lab exercises
10	Data-driven methods and Prediction technologies	Chapter 10	Data driven methods in practices and lab exercises
11	Systems Development and Project Management of Business Solutions such as Accounting Information Systems and evaluating impact and deployment outcome	Chapter 11	<b>Assessment 2 due:</b> Case Study Report Class quiz, case studies, topic overview and readings, Student's group presentations and lab exercises
12	Smart Applications and Digital Systems in Organisations for value adding	Chapter 12 Seek link to additional reading under Course Readings	Student's group presentation and overview, and lab exercises
13	Course Review & Exam Preparation		Final overview, summary, discussion on future directions and examination preparation

**If a lecture/class is scheduled on a public holiday, a make-up lecture may be announced by the course coordinator on the course CANVAS site.**

# CONTACTS

## School Offices

### Newcastle Business School – Callaghan, Newcastle City & Online

NU Space  
409 Hunter Street  
Newcastle  
[nbs.enquiries@newcastle.edu.au](mailto:nbs.enquiries@newcastle.edu.au)  
+61 2 4921 5511

### Newcastle Business School - Ourimbah

BO1.13, Business Offices  
Ourimbah  
[cccbusiness-school@newcastle.edu.au](mailto:cccbusiness-school@newcastle.edu.au)  
+61 2 4349 4453

### Newcastle Business School - Sydney

55 Elizabeth Street  
Sydney  
[nbs-sydney@newcastle.edu.au](mailto:nbs-sydney@newcastle.edu.au)  
+61 2 82626432

### PSB Academy Enquiries

Log your question or request to the PSB Program Executives at the following website:  
<http://www.psb-academy.edu.sg/eng>  
+65 6390 9000

### Newcastle Australia Institute of Higher Education Pte Ltd

100 Victoria Street #13-01/02  
National Library Building  
Singapore  
[Singapore-StudentCentral@newcastle.edu.au](mailto:Singapore-StudentCentral@newcastle.edu.au)  
+65 6221 3306

# ADDITIONAL INFORMATION

## Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

\*Skills are those identified for the purposes of assessment task(s).

<b>Communication Methods</b>	Communication methods used in this course include: <ul style="list-style-type: none"> <li>- CANVAS Course Site: Students will receive communications via the posting of content or announcements on the CANVAS course site.</li> <li>- Email: Students will receive communications via their student email account.</li> <li>- Face to Face: Communication will be provided via face to face meetings or supervision.</li> </ul>
<b>Course Evaluation</b>	Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement.
<b>Oral Interviews (Vivas)</b>	As part of the evaluation process of any assessment item in this course an oral examination (viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the <a href="#">Oral Examination (viva) Procedure</a> . In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the <a href="#">Student Conduct Rule</a> .
<b>Academic Misconduct</b>	All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to <a href="https://policies.newcastle.edu.au/document/view-current.php?id=35">https://policies.newcastle.edu.au/document/view-current.php?id=35</a> .
<b>Adverse Circumstances</b>	The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where: <ol style="list-style-type: none"> <li>1. the assessment item is a major assessment item; or</li> <li>2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;</li> <li>3. you are requesting a change of placement; or</li> <li>4. the course has a compulsory attendance requirement.</li> </ol> Before applying you must refer to the Adverse Circumstances Affecting Assessment Items Procedure available at: <a href="https://policies.newcastle.edu.au/document/view-current.php?id=236">https://policies.newcastle.edu.au/document/view-current.php?id=236</a>
<b>Important Policy Information</b>	The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at <a href="https://www.newcastle.edu.au/current-students/no-room-for/policies-and-procedures">https://www.newcastle.edu.au/current-students/no-room-for/policies-and-procedures</a> that support a safe and respectful environment at the University.

*This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.*

© 2024 The University of Newcastle, Australia