Unit of Study Guide

Unit Code and Title	**BUS5003 Information Systems and Data Analysis**
Course(s)	Graduate Certificate in Business Management Graduate Diploma of Business Management Master of Business Administration
Core or Elective	**Core:** Graduate Certificate in Business Management Graduate Diploma of Business Management Master of Business Administration
Credit Points	8 credit points
Duration	12 weeks
AQF Level	8
Student Workload	Students should expect to spend 156 hours on learning activities across the study period. This includes time spent attending scheduled classes, undertaking private study, preparing assessments, and completing examinations.
Essential Requirements	N/A
Mode(s) of Delivery	On campus / Online
Pre-Requisite/Co-Requisite	Co-Requisite BUS5001 Ethical, Legal and Industrial Frameworks
Unit Coordinator	
Contact Information	✉: ☎: +61 02 9318 8111 Consultation: By appointment

Unit Description

BUS5003 Information Systems and Data Analysis takes a "real world" approach to investigating, understanding and using business data and business information systems. The unit is designed to give students insight into business data to enable objective, evidence based decision making. On completion of this unit students will be able to evaluate business information systems, understand the importance of cyber security and interrogate enterprise data.

Unit Learning Outcomes (ULOs)

On successful completion of this unit, students will be able to:

ULO1 Evaluate the core elements of a contemporary Management Information Systems (MIS) which support enterprise strategy and process.

ULO2 Evaluate how different MIS can be used to support enterprise decision making to sustain competitive advantage.

ULO3 Synthesise the value and relationship between enterprise data, data management and market intelligence.

ULO4 Evaluate current and future MIS trends, challenges and opportunities.

Course Learning Outcomes (CLOs)

Successful completion of this unit will contribute to the following Course Learning Outcomes (CLOs):

CLO1 Using appropriate technologies and methodologies, review, critically analyse and apply information, concepts, and standards to support and justify enterprise decisions.

CLO2 Generate sustainable solutions to real world, contemporary enterprise problems.

CLO3 Interact effectively in diverse teams to deliver outcomes, both as team members and as team leaders, as appropriate to the context.

CLO4 Effectively communicate concepts, proposals and solutions to enterprise problems to stakeholders using appropriate communication modalities.

CLO5 Demonstrate responsible, accountable and ethical behavior.

CLO6 Objectively reflect on and evaluate outcomes and feedback for continuous improvement.

Graduate Attributes (GAs)

Successful completion of this unit will contribute to the following APIC Graduate Attributes (GAs):

GA1. Analytical and Scholarly: APIC graduates will be able to locate, select and evaluate information from a range of sources to ensure currency of their knowledge base.

GA2. Ethical and Inclusive Professionals: APIC graduates will respect multiple perspectives, human rights, and ethical principles. They will also be capable of autonomy and self- directed practice.

GA 3. Innovative Problem Solvers and Decision Makers: APIC graduates will be curious, enquiring and adaptable, embracing and creating change. They will be able to find novel and effective solutions for anticipated and unexpected challenges and make appropriate, timely and justified decisions.

GA 4. Excellent Communicators: APIC graduates will be able to communicate effectively in oral and written English and collaborate with others to achieve outcomes. They will be able to adapt their communication style to context.

GA 5. Critical and Reflective Thinkers: APIC graduates will actively reflect on and critique information, decisions, and strategies for continuous improvement.

GA 6. Leaders and Collaborators: APIC graduates will be able to work effectively in diverse teams that require leadership, collaboration and teamwork skills to achieve outcomes.

Learning and Teaching Approach

Learning and teaching in this unit applies the APIC model of providing transformational learning experiences that are student-centered, collaborative, active, reflective and applied. Key themes embedded into the resources, challenges and assessments are ethical practice, sustainability, evidence-based decision making and real-world applications. Completion of the learning activities for each week will give students the discipline knowledge and skills required to complete the assessments. Successful completion of all assessments demonstrates that the unit learning outcomes have been achieved. Additional support to further enhance students' academic skills is available from the Academic Enhancement team.

Expectations of Students

Students are expected to:

- Prepare for scheduled classes by completing assigned activities
- Attend at least 80% of scheduled classes
- Actively participate in class activities
- Seek clarification and advice from teaching staff as needed
- Attempt all assessments
- Submit assessments on time
- Review and reflect on feedback on assessments and seek clarification about feedback where needed
- Notify the lecturer and / or unit coordinator if unable to attend classes and/or submit assessments

Completion of the learning activities for each week will give students the discipline knowledge and skills required to complete the assessments. Successful completion of all assessments demonstrates that the unit learning outcomes have been achieved.

Schedule of Learning and Teaching Activities

	Topic	Learning Activities	Readings
Week 1	Introduction to Information Systems and Data Analysis	**Concepts** • Introduction to unit aims, objectives, learning strategies, resources available, timetable, assessment methods and related briefings. • Information Systems: types and components • Evaluating Information • How to gain a Strategic Value from Information?	Belanger Ch. 1-4 Joshi Ch. 1-2

		Activities • Case studies	
Week 2	Data Resources	**Concepts** • Overview of Databases • Relational Databases • Spreadsheets **Activities** • Case studies	Belanger Ch. 5 Joshi Ch. 6
Week 3	Organisational Value of Improved Decision Making	**Concepts** • The Importance of Good Decision-making Skills • Using Information for Decision-making • Types of decisions • A Decision-Making Process **Activities** • Information Retrieval and Analysis Tools • Case studies	Belanger Ch. 6 Joshi Ch. 12
Week 4	Networks and Telecommunications	**Concepts** • Types of Networks • The Internet • Networking Architectures • Communicating Information in Modern Organisations **Activities** • Case studies	Belanger Ch. 7 Joshi Ch. 7
Week 5	Information Security Management. Ethical and Societal Challenges of information systems and IT	**Concepts** • Information Security Threats • Security Technologies and Solutions • Information Privacy Threats • Data Collection • Technologies and Solutions for Information Privacy • Government Information Privacy Regulations • Mobile Information Privacy • Privacy and Ethics • Ethical Decisions • Relationship between Security and Privacy **Activities** • Case studies	Belanger Ch. 8-9 Joshi Ch. 17-18
Week 6	Information Systems Planning and Development	**Concepts** • Software development methodologies • Traditional systems development life cycle • Alternative methodologies • Outsourcing of information systems • Using open source architecture in enterprises **Activities** • Case studies	Belanger Ch. 9-10 Joshi Ch. 15

Week 7	Information Based Processes for Enterprise Leadership and Improvement	**Concepts** • Process Modeling • Technology and Processes • Process Improvement **Activities** • Case studies	Belanger Ch. 11 Joshi Ch. 9
Week 8	Enterprise Information Systems	**Concepts** • Enterprise systems and data integrity for Enterprise Resource Planning (ERP) • Supply chain management systems in the context of data management and security • Customer relationship in the context of data management and security, • Customer-managed interactions (CMI) in the context of data management and security • Warehouse automation and robotics in the context of data management and security **Activities** • Case studies	Belanger Ch. 12 Joshi Ch. 9
Week 9	MIS for Electronic Business	**Concepts** • MIS at the core of successful E-Business • The role of MIS in active enterprise engagement • Defining the types and nuances of different E-Business models • Optimum MIS platform designs for different E-Business models **Activities** • Case studies	Belanger Ch. 13 Joshi Ch. 8
Week 10	Knowledge Management and Intelligent Systems and Bringing It All Together	**Concepts** • Information systems and Knowledge Management • Knowledge Management technologies • Decision support systems • Group decision support systems • MIS in support of business intelligence • Conclusion and wrap up **Activities** • Review and reflection of the subject of Information Systems and Data Analytics • Planning for final assessment	Belanger Ch. 14 Joshi Ch. 13
Week 11	**Presentation and Discussion**		
Week 12	**Presentation and Discussion**		

Assessment Information

Assessment	Weight	Due Week	Duration	ULO
1. Client Brief (Experiential) (Group) A business sponsor enterprise will introduce their organisation to the students. Following group discussions, students will individually prepare a project brief to be presented to the client	30%	4	1000 words	ULO1
2. Systems map and report (Representative) (Individual) Part A Students work together in pairs to analyse a case and individually present an analysis of the MIS situation and suggestions to improve the stated problem. Part B Students will present and defend their improved solution	30% 10%	7 11 or 12	Annotated Nodal map 2500 words eq 500 words eq	ULO1 ULO2 ULO4
3. Reflective blog (Reflection) (individual) Students submit weekly reflective comments to their blogs focusing on issues and processes they encounter.	30%	12	2500 words	ULO3 ULO4

Resources

Prescribed Text(s)

Belanger, F, Van Slyke, C & Crossler, R 2019, *Information systems for business: An experiential model approach*, Prospect Press, Victoria.

Recommended Readings:

Joshi, G 2013, *Management information systems*, Oxford University Press, New Delhi.

Other Recommended Resources:

Alter, S 2004, *Information systems – the foundation of e-business*, Pearson Education, Singapore.

Forouzan, B 2003, *Data communications and networking*, Tata McGraw-Hill, New Delhi.

Kalakota, R & Robinson, M 2001, *E-business 2.0: Roadmap for success*, Addison-Wesley, Reading.

Keen, P & Morton, M 1978, *Decision support systems: An organizational perspective*, Addison-Wesley Publishing Company, Reading.

Laudon, K & Laudon, J 2010, *Management information systems*, Pearson Education, Singapore.

Moore, S 2007, 'Dirty data is a business problem, not an IT problem', Gartner Inc, <http://www.gartner.com/newsroom/id/501733>.

Norris, G, Hurley, J, Hartley, K, Dunleavy, J & Balls, J 2000, *E-Business and ERP: Transforming the enterprise*, John Wiley & Sons, New York.

Pereira, B 2003, 'Information security: A new approach', *Network Magazine*, April,

<http://www.networkmagazineindia.com/200304/cover1.shtml>

Participation

Students are required to participate in all collaborative work, group work and work integrated activities, such as study tours, industry lead activities and open forums, (a) actively, fully and positively; and (b) in a timely manner. Student contributions to collaborative, group, and work integrated activities must be meaningful, of value to peers, and follow the specifications of the Unit Study Guide.

Academic Misconduct

Ethical conduct and academic integrity and honesty are fundamental to the mission of APIC and academic misconduct will not be tolerated by the College. It is the responsibility of every student to make sure that they understand what constitutes academic misconduct and to refrain from engaging in it. Please refer to APIC's Academic Integrity Policy for further details.

Attendance

APIC has a responsibility to ensure that all students enrolled at the College are able to make satisfactory progress through their course, and attending scheduled classes is essential for course progression. For onshore international students maintaining satisfactory attendance in the course and making satisfactory progress with the course are also conditions of the student Visa. APIC therefore monitors the attendance of all students at all scheduled classes and students are required to attend at least 80% of scheduled for units in which they are enrolled, where attendance means that the student is present for the whole duration of the scheduled lecture, tutorial or seminar class. Students are advised that decisions about the award of supplementary assessments will take into account student attendance.

Disclaimer

This unit study guide may be updated and amended from time to time. Any changes to the unit will be notified to students through the Online Learning System (OLS) for the unit.