Unit Outline (Higher Education)

Institute / School:	Institute of Innovation, Science & Sustainability
Unit Title:	Business Analytics and Decision Support
Unit ID:	ITECH2501
Credit Points:	15.00
Prerequisite(s):	(ITECH1103 or ITECH1503)
Co-requisite(s):	Nil
Exclusion(s):	(ITECH3101)
ASCED:	020307

Description of the Unit:

This unit will cover business analytics and decision support, consisting of decision support systems (DSS), business intelligence (BI) and various decision-making techniques. Students will explore and examine theories and principles of business analytics and decision, including descriptive analytic, predictive analytic, and prescriptive analytic approaches. Students will have opportunities to apply these skills and knowledge to real-world business questions, comparing and selecting relevant analytic strategies, and formulating meaningful insights and solutions for supporting decision-making.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Work Experience:

No work experience: Student is not undertaking work experience in industry.

Placement Component: No

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment

Course Level:

Level of Unit in Course	AQF Level of Course					
	5	**6**	**7**	**8**	**9**	**10**
Introductory	☐	☐	☐	☐	☐	☐

Level of Unit in Course	AQF Level of Course					
	5	6	7	8	9	10
Intermediate			✔			
Advanced						

Learning Outcomes:

Knowledge:

K1. Explain how data analytics can create a competitive advantage for businesses in the digital economy.

K2. Explain the practical application of various forms of data in a business setting.

K3. Apply relevant business analytics approaches to produce actionable outcomes.

K4. Generate alternate solutions to bolster data-informed strategic decisions.

Skills:

S1. Investigate business data using multiple analytic tools and experimental methods.

S2. Prepare descriptive or reporting analytics by using visualization techniques.

S3. Communicate and present findings of a business analysis using suitable visualisation methods.

Application of knowledge and skills:

A1. Propose a solution to an identified business problem using business analytic tools and techniques to provide insights and aid decision-making.

A2. Communicate business decision-making strategies and solutions for a given scenario to a range of stakeholders.

Unit Content:

Topics may include:

- Overview of business analytics and decision support.

- Foundations and technologies for decision making.

- Modern business analysis and AI.
- Visual analytics for business and decision making
- Descriptive analytic approaches.
- Predictive analytic approaches.
- Text analytics and sentiment analysis
- Social network, AI, IoT and decision making.
- Emerging trends in business analytics and decision making.

FEDTASKS

Federation University Federation recognises that students require key transferable employability skills to prepare them for their future workplace and society. FEDTASKS (**T**ransferable **A**ttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are be embedded within curriculum, developed gradually towards successful measures and interlinked with cross-discipline and Co-operative Learning opportunities. *One or more FEDTASK, transferable Attributes, Skills or Knowledge must be evident in the specified learning outcomes and assessment for each FedUni Unit, and all must be directly assessed in each Course.*

FEDTASK attribute and descriptor		Development and acquisition of FEDTASKS in the Unit	
		Learning Outcomes (KSA)	Assessment task (AT#)
FEDTASK 1 Interpersonal	Students will demonstrate the ability to effectively communicate, inter-act and work with others both individually and in groups. Students will be required to display skills in-person and/or online in: • Using effective verbal and non-verbal communication • Listening for meaning and influencing via active listening • Showing empathy for others • Negotiating and demonstrating conflict resolution skills • Working respectfully in cross-cultural and diverse teams.	S3	AT2
FEDTASK 2 Leadership	Students will demonstrate the ability to apply professional skills and behaviours in leading others. Students will be required to display skills in: • Creating a collegial environment • Showing self -awareness and the ability to self-reflect • Inspiring and convincing others • Making informed decisions • Displaying initiative	K3,K4	AT1, AT3
FEDTASK 3 Critical Thinking and Creativity	Students will demonstrate an ability to work in complexity and ambiguity using the imagination to create new ideas. Students will be required to display skills in: • Reflecting critically • Evaluating ideas, concepts and information • Considering alternative perspectives to refine ideas • Challenging conventional thinking to clarify concepts • Forming creative solutions in problem solving.	K1, K2	AT3

FEDTASK attribute and descriptor		Development and acquisition of FEDTASKS in the Unit	
		Learning Outcomes (KSA)	Assessment task (AT#)
FEDTASK 4 Digital Literacy	Students will demonstrate the ability to work fluently across a range of tools, platforms and applications to achieve a range of tasks. Students will be required to display skills in: • Finding, evaluating, managing, curating, organising and sharing digital information • Collating, managing, accessing and using digital data securely • Receiving and responding to messages in a range of digital media • Contributing actively to digital teams and working groups • Participating in and benefiting from digital learning opportunities.	S1, S2, S3	AT2
FEDTASK 5 Sustainable and Ethical Mindset	Students will demonstrate the ability to consider and assess the consequences and impact of ideas and actions in enacting ethical and sustainable decisions. Students will be required to display skills in: • Making informed judgments that consider the impact of devising solutions in global economic environmental and societal contexts • Committing to social responsibility as a professional and a citizen • Evaluating ethical, socially responsible and/or sustainable challenges and generating and articulating responses • Embracing lifelong, life-wide and life-deep learning to be open to diverse others • Implementing required actions to foster sustainability in their professional and personal life.	Not applicable	Not applicable

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K2, K3, S1, S2, A1	Work individually or in groups to analyse business problems based on real-world business scenarios, design alternative solutions and evaluate the relevant theories and techniques to support business decision-making.	Assignment(s)	30%- 40%
K4, S3, A1, A2	Design and develop a decision-support solution for an authentic business case. Draw upon relevant theories to justify your approach, choice of business analytics systems and techniques, and decision-making strategy, including alignment with the business problem. Formulate and present strategic recommendations to a stakeholder audience, considering both immediate operational improvements and long-term strategic objectives. Articulate how the proposed recommendations align with broader business transformation goals, and reflect on your learning.	Essay, Presentation and Reflection	30%- 50%

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
K1, K2, K3,K4, S3, A1	Examinations/test will cover topics taught in the unit	Examination/test	20%-30%

Adopted Reference Style:

APA

Refer to the library website for more information

Fed Cite - referencing tool