

MIS771 - Descriptive Analytics and Visualisation

INTRODUCING THE UNIT TEAM

| Role | Name | Email |
|-------------------------|--------------------------|--|
| Unit Chair/ Lecturer | Dr Humza Naseer | h.naseer@deakin.edu.au |
| Lecturer/Tutor | Hilton Short | hilton.short@deakin.edu.au |
| Head Tutor | Abhinav Shrivastava | TBC |
| Tutor | Dr. Adil Bilal | adil.bilal@deakin.edu.au |
| Tutor | Dr. Ruwan Nagahawatta | r.nagahawatta@deakin.edu.au |

UNIT OVERVIEW

| Week/Commencing | Modules | | Topics | Assessments |
|--------------------------------------|----------|-----------------|---|--|
| Week 1 (11 th July) | Module 1 | Problem Solving | Introduction to Business Problem Solving | |
| Week 2 (18 th July) | | | Statistical Inferences about two populations No Lecture (Labour Day) – Pre-Recording Provided | |
| Week 3 (25 th July) | | | One-way ANOVA | |
| Week 4 (1 st August) | | | Two-way ANOVA & Chi-square tests | |
| Week 5 (8 th August) | Module-2 | Modelling | Regression Analysis, Model Building & Advanced Topics | A1 (30%) Individual Business Report 11/08/24 |
| | | | Intra-trimester break: Monday 12 August – Sunday 18 August 2024 (inclusive) | |
| Week 6 (22 nd August) | | | Logistic Regression | |
| Week 7 (29 th August) | | | Time Series | |
| Week 8 (5 th September) | | | No lecture – Practicals will run | |
| Week 9 (12 th September) | Module 3 | Visualisation | Data Visualisation Theory and Practice -1 | A2 (35%) Individual Technical Report 15/09/24 |
| Week 10 (19 th September) | | | Data Visualisation Theory and Practice -2 | |
| Week 11 (26 th September) | | | Data Visualisation Theory and Practice -3 No practicals (Friday: AFL Grand Final) | |
| Week 12 (1 st Oct) | | | | A3 (35%) Individual WordPress Site 06/10/24 |

RESOURCES

- Study Resources:
 - CloudDeakin – *Concept videos / Topic guides / Readings / quizzes*
 - Library has numerous business statistics reference books
 - e.g., Berenson and Levine (2018) Basic Business Statistics
- Software:
 - Microsoft Excel with Data Analysis Tool Pak
 - Real Statistics Data Analysis Tool
 - Tableau Software
 - WordPress



WORDPRESS



tableau

ASSESSMENT 1

(INDIVIDUAL – 30%)

- This assignment requires you to (a) analyse a given data set; (b) interpret and draw conclusions from your analysis; and (c) convey your conclusions in a written report to a person with little or no knowledge of Business Analytics.

The assignment deliverables include:

- A single Excel file: This should include your intermediate analysis and final analysis outputs.
- An electronic Word document (1500 Words Report): This should entail a detailed and accurate description of the features of the analysis along with appropriately qualified conclusions.
- An electronic Word document (template provided): This shows how to plan the project to submit it on time.



ASSESSMENT 2

(INDIVIDUAL – 35%)

- This assignment requires you to (a) analyse a given data set; (b) interpret and draw conclusions from your analysis; and (c) convey your conclusions in a written report to an expert in Business Analytics.

The assignment deliverables include:

- A single Excel file: This should include your intermediate analysis and final analysis outputs.
- An electronic Word document (1500 Words Report): This should entail a detailed and accurate description of the features of the analysis along with appropriately qualified conclusions.
- An electronic Word document (template provided): This shows how to plan the project to submit it on time.



ASSESSMENT 3

(INDIVIDUAL – 35%)

- Using a provided sample dataset, each student will be expected to assemble an interactive dashboard using Tableau Software. The assignment deliverables include:
 - An interactive dashboard developed via Tableau and presented via the WordPress platform (supplementary reports included). Together, the interactive dashboard and WordPress website should delineate the nature of the data, the design process and the engagement aspects considered in developing the dashboard.
 - A critical self-reflective report (500 words) about Self-Management skills and knowledge gained during the trimester.



APPROACH TO STUDYING THIS UNIT

- Three student cohorts:
 - On-campus
 - Those attending lectures and labs at Melbourne Campus
 - Online
 - Live Online: those joining live Zoom lectures and practicals (lab)
 - Offline: those working remotely and following recordings of lectures and practicals (lab)
- For Module 1 and 2: On-campus lectures will be live-streamed on Zoom from 6 pm - 8 pm Monday followed by a weekly scheduled 1-hour practical (lab) session. Melbourne Campus students should check your personalised timetable. Separate lab sessions (Zoom) will be run for Cloud campus students on Tuesday at 6 pm.
- For Module 3: Hybrid - A mix of on-campus activities, recorded lectures and labs from the industry practitioner.

APPROACH TO STUDYING THIS UNIT

Lectures

- Provide you with broad exposure to each topic discussed and the links to other topics.
- By themselves, they will not be sufficient to enable you to apply the concepts covered.
- You will need to do much work outside lectures to develop an in-depth understanding.
 - read, and attempt questions and quizzes
 - engage - ask questions and participate in discussions

APPROACH TO STUDYING THIS UNIT

Labs

- Will use computer software (Excel and Tableau)
- Will present examples of applying concepts covered in the lectures.
- Some discussion about the assignment expectations.

GRADUATE LEARNING OUTCOME



GLO6: Self-Management

- We consider you to be an Information Systems Scholar and an emerging Analytics professional.
- There are many dimensions of Self-Management, but for MIS771, we consider the ability to:
 - *plan and organise learning;*
 - *reach milestones in a timely way / submit work on time;*
 - *adopt an independent approach to study;*
 - *seek out information, assistance, and resources;*
 - *think about reflective practices.*
- These dimensions are interwoven in assessable tasks.

<https://au.indeed.com/career-advice/career-development/self-management-skills>

GLO6: RESOURCES



- Study Workload Planner [important]

<https://www.deakin.edu.au/students/studying/study-support/weekly-planner>

- Assignment Planner [important]

<https://www.deakin.edu.au/students/studying/study-support/academic-skills/assignment-planner>

- Organising your studies [important]

<https://www.deakin.edu.au/students/studying/study-support/academic-skills/organising-your-studies>

- Time management techniques [important]

<https://blogs.deakin.edu.au/deakinlife/category/study-support/>

- Academic Study

<https://www.deakin.edu.au/students/studying/study-support>

(Mentors – Maths & Writing); Online tutoring and writing feedback!

ASSURANCE OF LEARNING – GLO6



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ACADEMIC INTEGRITY AND GENERATIVE AI

- All students are provided with genuine and timely opportunities to learn about academic integrity
- Responsibilities, Strategies and Consequences

<https://www.deakin.edu.au/students/studying/academic-integrity>

- Guidelines on the use and ethics of generative AI
- <https://deakin.libguides.com/generative-AI>
- If in doubt, ask for help!



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