We wish to acknowledge the people of the Kulin Nations, on whose lands we are gathered today. These lands are places of age-old ceremonies; where ideas, culture, history and knowledge are exchanged – a tradition that continues to this day.

We pay our respects to their Elders, past and present, and acknowledge that the land and waterways are, and always will be, traditional Indigenous land and that sovereignty was never ceded.
SESSION OUTLINE

- **Maths in Business** – A brief overview of entry requirements for newcomers. Why do we have it?

- **From units three and four to university**…the journey.

- **Showcase and examples**: MBUS course application of maths.

- **Alumni perspective**: Harry Evans

- **Q&A**
WHY THIS TOPIC?

• Maths across business courses is not a one-size-fits-all approach…
• To assist with careers counselling when guiding your students both on subject selection and course options.
• Build a better understanding of the differences across our comprehensive degrees, and how maths is applied in our courses.
• Provide a forum for feedback from you…your experience as CP’s, and your questions…
COURSE
Bachelor of Business Administration

ENTRY REQUIREMENTS
VCE: Units 1 and 2: Satisfactory completion in 2 units (any study combination) of Maths: General Mathematics, Maths: Mathematical Methods or Maths: Specialist Mathematics or Units 3 and 4: any Mathematics.

IB SUBJECTS: Successful completion of any mathematics subject.
COURSE
Bachelor of Business

Specialist Degrees
Bachelor of Accounting
Bachelor of Banking & Finance
Bachelor of International Business
Bachelor of Marketing

ENTRY REQUIREMENTS
VCE: Units 3 & 4: a study score of at least 22 in one of Maths: Mathematical Methods or Maths: Specialist Mathematics or at least 25 in Maths: Further Mathematics.

IB SUBJECTS: At least 4 in Mathematics: Applications and Interpretations SL or 4 in Mathematics: Analysis and Approaches SL or 3 in Mathematics: Applications and Interpretations HL or 3 in Mathematics: Analysis and Approaches HL.
COURSE
Bachelor of Commerce

Specialist Degrees
Bachelor of Actuarial Science
Bachelor of Economics
Bachelor of Finance

ENTRY REQUIREMENTS
VCE: Units 3 & 4: a study score of at least 25 in one of Maths: Mathematical Methods or Maths: Specialist Mathematics.

IB SUBJECTS: At least 4 in Mathematics: Analysis and Approaches SL or 3 in Mathematics: Analysis and Approaches HL or 3 in Mathematics: Applications and Interpretations HL.
WHY MATHS AT MONASH BUSINESS SCHOOL?

• Prepares students for understanding the course content and succeeding at Monash.

• Builds on their secondary three and four maths units.

• Prepares students for the employment market, particularly areas like data analytics and actuarial studies that require the application of high-level maths.

• The ability to analyse data is becoming more important in business contexts. Application of maths can broaden their skill set.

• There are different maths options across the courses – not all students need to do methods (i.e. BBUS/BBA).
• **Commerce (BCOM)** has a higher application of maths, and builds on students have methods or specialist maths…

• BCOM tends to offer more analytical and statistical majors i.e. actuarial studies and business analytics

• **Business (BBUS)** tends to be more people-focused majors i.e. marketing, human resources…

• Differences, also in the double degree options… i.e. law, biomedical science, science, and engineering only possible with commerce.
SO HOW MUCH MATHS DO STUDENTS NEED?

- The Bachelor of Business (BBUS) builds on the general maths curriculum:
  - Data analysis
  - Probability
  - Statistics.

- The Bachelor of Commerce (BCOM) builds on that higher-level methods or specialist maths:
  - Calculus content
  - Data analysis
  - Probability
  - Statistics.

- Following slides show relevant material and examples.
APPLICATION EXAMPLE

- Calculus content, data analysis, probability, and statistics
- Finance – trading
- Intersection/building of topics:
  - Investigating and modelling time series data
  - Recursion and financial modelling
  - Depreciation of assets
  - Compound interest investments and loans
  - Reducing balance loans

See pages 85 and 86 of VCE Mathematics Study design.
APPLICATION EXAMPLE – ARRIVALS RECOVERY

When will international arrivals recover to 2019

Figure 8: Scenario-based forecast distributions
APPLICATION EXAMPLE – TELSTRA TRACKER

TELSTRA TRACKER | MAXIMUM VELOCITY / RD24

Jason Saab | SEA EAGLES
37.4km/h

Selwyn Cobbo | BRONCOS
35.9km/h

Hamiso Tabuai-Fidow | COWBOYS
35.4km/h

Dylan Brown | EELS
34.9km/h

Tom Dearden | COWBOYS
34.7km/h

KEY MATCH STATS

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AFL Fantasy Points

TELSTRA TRACKER

MONASH University

AACSB ACCREDITED
EQUIS ACCREDITED
AMBA ACCREDITED
MONASH BUSINESS SCHOOL
EMERGING OPPORTUNITIES AND TRENDS

• Strong growth in data analytics, reflecting a trend across the globe.

• Graduates of actuarial studies - which is all about evaluating risk and opportunity - continue to show high starting salaries and employment opportunities.

• Role of AI working alongside maths in business and other roles…

• Accounting roles transferring to non-traditional landscapes – one-third of all ASX-200 listed CEOs have an accounting, financial services background…
TRANSFER OPTIONS TO MEET MATHS

Q: If students don’t have methods or specialist maths what is the recommended course of action if they wish to study a course that requires it (e.g. Bachelor of Commerce)?

A: The recommendation is to enrol in the Bachelor of Business and take **Mathematics for Business (ETF2700)** or **Introduction to Quantitative Skills for Social Sciences (ECC1550)** in Semester One, and then apply to transfer into the Bachelor of Commerce.

*Note: students are able to transfer in semester two (providing there is a mid-year intake and as soon as they meet pre-requisites. Applications for course transfer will close before results are released. Students will need to apply for transfer before they know if they have passed the unit. Mid-year entry is subject to the availability of mid-year intake for CSP.*
Great resource – Pre reqs page

https://www.monash.edu/study/courses/entry-requirements/math-science-prerequisite
Focuses on job readiness, providing graduates with practical skills to operate in any business environment.

Majors (specialisations)

- Accountancy
- Business Administration studies
- Economics and business decisions
- Finance and economics
- Management practice*
- Marketing and communications*

* A great option for students keen not to pursue maths in business…
Practical learning offers a deep insight into how organisations work across all business functions with a strong focus on people.

Majors:
- Accounting
- Banking and Finance
- Business Analytics and statistics
- Business Law
- Business management*
- Business studies

* More people/less maths-focused majors
Harness your analytical and quantitative skills to understand how commerce impacts decision-making, leadership, innovation, and policy development on a global scale.

Majors:

- Accounting
- Actuarial studies*
- Behavioural commerce
- Business Analytics*
- Econometrics*
- Economics
- Finance*
- Management studies
- Marketing science
- Mathematical foundations of econometrics*
- Sustainability

* More maths-focused majors
Alumni Perspective

Harry Evans
Bachelor of Commerce and Bachelor of Science (actuarial)
Graduate Data Analyst, Carsales.com.au
Thank you.
QUESTIONS?