

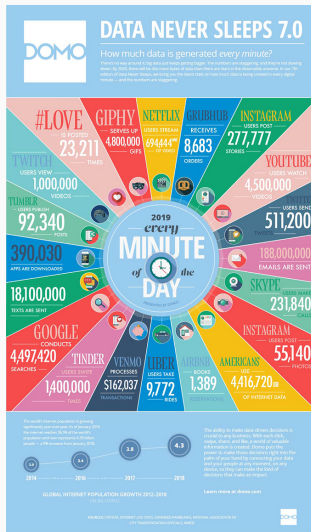


Master of Business analytics: MBAT

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<https://www.monash.edu/business/master-of-business-analytics>

Data is everywhere



Why Business Analytics?

Industries and governments need to make:

- Informed decisions based on facts 
- Facts are measured via data 
- Business analytics experts use statistical and computational methods to answer relevant questions using data 
- Business analytic professionals communicate findings to experts and broad audiences 

Master of Business Analytics -> Starting 2020

EBS, Monash University

- ➔ Statistical modelling
- ➔ Computational methods
- ➔ R
- ➔ End-to-end analytics
- ➔ Communicating with data



Know what you are doing!

Top jobs under the “4th Industrial revolution”

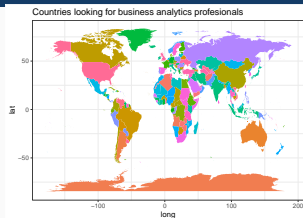
Visualization
Modelling
Decision making
R Data
Statistics
Computational statistics
Communicating with data
Business analytics

- 1 Data Scientists 19% ↑
- 2 Statistician 33% ↑
- 3 University Professor

Data is driving the 4th Industrial Revolution

Decisions and Data

- ↑ Increasing availability of data
- ➔ Data is crucial to make decisions



✓ Industries and governments make informed decisions based on data

✓ Business analytics professionals will play a mayor role in decision making

What's special about MBAT at Monash?

- Taught by internationally renowned researchers. We have authored many of the tools that are now taught around the world.
- Close connections with discipline leaders and primary developers across the globe.
- Cutting edge, focusing on problem solving and hands-on experience.
- Focus on wild data, real problems.
- Fiercely independent, not sponsored by any software company.
- We only use open-source software for maximum flexibility and accessibility

The only masters course in the world based entirely around R and taught by leading R developers.

- The **leading statistical programming** framework.
 - Completely free and **open-source**
 - Used by **every major company in the world**
 - Supported by **Microsoft, Google, Facebook, Amazon, etc**
- Rob Hyndman wrote the main forecasting tools
 - Di Cook is a member of the R foundation
 - The leading R developers visit Monash regularly.

Master of Business Analytics

- At least **one unit of undergraduate statistics**.
- An **interest** in using **data** to solve problems and uncover truths.
- A combination of **mathematics and computing skills** with **curiosity** about the world.
- Most **likely** an **undergraduate degree** in a quantitative discipline: **engineering, computer science, mathematics, statistics**.

Units -> Advanced Preparatory Studies

Advanced preparatory studies (24 points)

- ETC5510: Introduction to data analysis
- ETC5242: Statistical thinking
- ETC5250 Introduction to machine learning
- ETC5550 Applied forecasting

Units -> Mastery Knowledge

Mastery knowledge (48 points)

- ETC5512 Wild-caught data
- ETC5513 Collaborative and reproducible practices
- ETC5521 Exploratory data analysis
- ETC5523 Data story-telling
- ETF5500 High dimensional data analysis
- ETC5555 Statistical machine learning
- ETC5580 Advanced statistical modelling
- ETC5543 Business analytics creative activity (12)

Units -> Application Studies

Application studies (24 points)

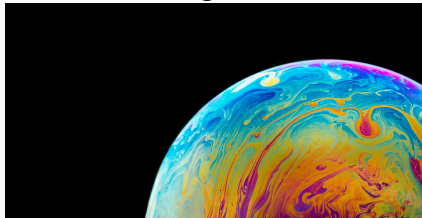
- FIT9133 Programming foundations in Python
- FIT5205 Data in society
- FIT9132 Introduction to databases
- MAT9004 Mathematical foundations for data science
- ETC5410 Bayesian time series econometrics
- FIT5147 Data exploration and visualisation
- ETC5555 Statistical machine learning
- FIT5212 Data analysis for semi-structured data

MBAT: A World full of opportunities

- Highly connected instructors in analytics community
- Instructors are active researchers
- Learning cutting edge, using latest tools and best established methodology

- Learn end-to-end analytics including data collection, modeling, collaboration, communication.
- Broad foundation: statistical thinking, probabilistic modeling, computational techniques
- Social conscience, working for a better world

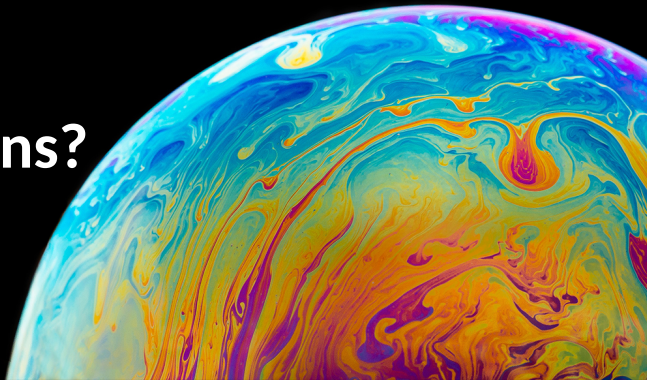
All here @Monash!



Jump in!

Many thanks!

Questions?



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