

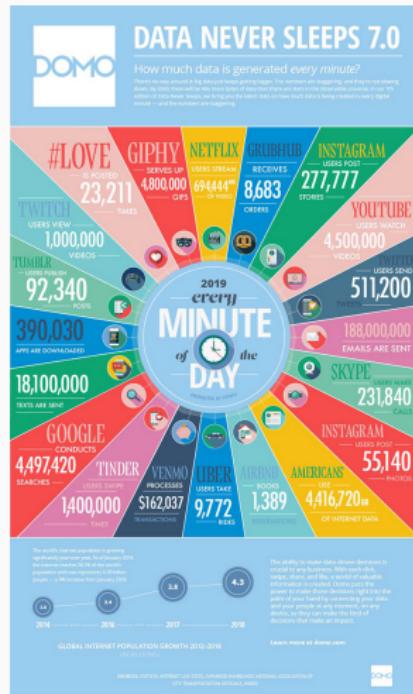


# **Master of Business analytics: MBAT**

Patricia Menéndez

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

# Data is collected everywhere and at any time



# Why Business Analytics?

**Industries and governments need to make:**

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**Industries and governments need to make:**

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

# Master of Business Analytics -> Starting 2020

- 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



Know what you are doing! **EBS, Monash University**

# 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



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✓ Industries and governments make informed decisions based on data

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

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- 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.

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- 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

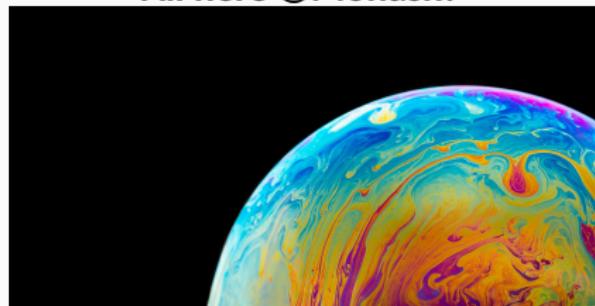
- **Location and duration:** 1.5 or

- 2 years full time or 3 or 4 years part time @ Monash Clayton

- **Applications** for our Semester 1 intake (February 2020) are now open.

- **Entry requirements:** Australian bachelor's degree or an equivalent qualification

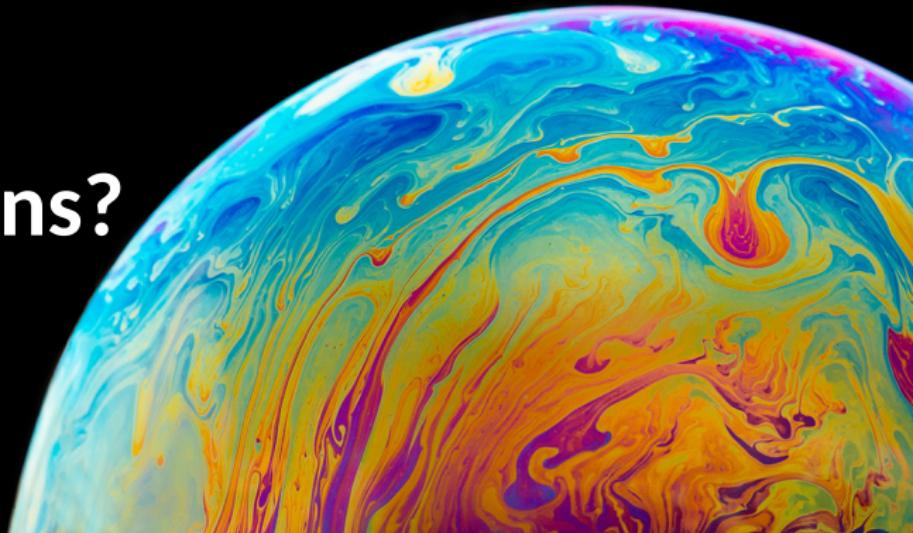
All here @Monash!



Jump in!

# Many thanks!

## Questions?



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