

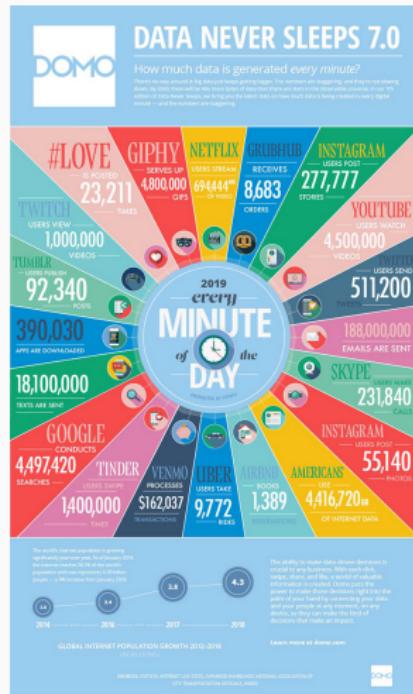


Master of Business analytics: MBAT

Dr Patricia Menéndez, Lecturer MBAT

<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:

- 👉 Informed decisions based on facts 📈

Why Business Analytics?

Industries and governments need to make:

- Informed decisions based on facts 
- Facts are measured with data 

Why Business Analytics?

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 

Why Business Analytics?

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”

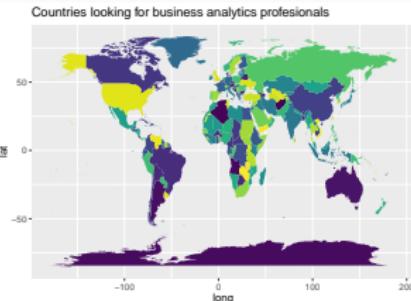
Business analytics
Visualization
R Computational statistics
Decision making
Data Statistics
Modelling
Communicating with data

- ① Data Scientists 19% ↑
 - ② Statistician 33% ↑
- Median salary
USD114K

Data is driving the 4th Industrial Revolution

Countries looking for MBAT graduates

- ↑ Increasing demand for Business Analytics graduates
 - ➔ Worldwide!



Countries looking for MBAT graduates

- ↑ Increasing demand for Business Analytics graduates
- Worldwide!



- ✓ Business analytics professionals are/will play a major role in decision making **with Jobs @**
 - Industry
 - Government
 - University

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.

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.

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.

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. We have experience working with industry and government.

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. *We have experience working with industry and government.*
- Fiercely independent, not sponsored by any software company only use open-source



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.

MBAT users profile

- At least **one unit of undergraduate statistics.**

MBAT users profile

- At least **one unit of undergraduate statistics.**
- An **interest** in using **data** to solve problems and uncover truths.

MBAT users profile

- At least **one unit of undergraduate statistics**.
- An **interest** in using **data** to solve problems and uncover truths.
- A combination of **curiosity in quantitative and computational methods** with a **desire** to make a difference.

MBAT users profile

- At least **one unit of undergraduate statistics**.
- An **interest** in using **data** to solve problems and uncover truths.
- A combination of **curiosity in quantitative and computational methods** with a **desire** to make a difference.
- An **undergraduate degree** that has sparked your interest to work with data to answer real life questions.

Units -> Advanced Preparatory Studies

(A) Advanced preparatory studies (24 points)

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

→ Depending on prior qualifications -> credits might be received for (A)

→ All students will complete (B) and (C)

Units -> Mastery Knowledge

(B) 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

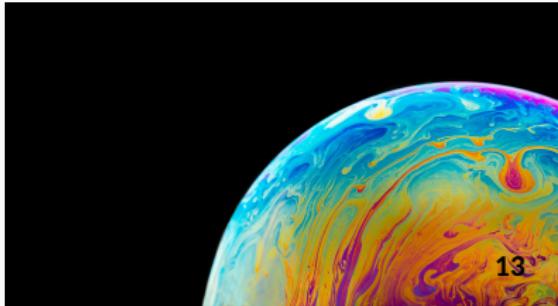
(C) Application studies (24 points)

- 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

- **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. An equivalent qualification, with a weighted average mark (WAM) of 65, or equivalent GPA as determined by the School.

- > Highly connected instructors in analytics community
- > Instructors → active researchers
- > Learning cutting edge → latest tools & best established methods



Many thanks!

Questions?

andreyevs

\end{textblock}