



**MONASH**  
University

MONASH  
BUSINESS  
SCHOOL

**ETC3550**

**Applied forecasting for  
business and economics**

# Contact details

## Lecturer

### **Professor Rob Hyndman**

- Room E762, Menzies Building
- Email: [Rob.Hyndman@monash.edu](mailto:Rob.Hyndman@monash.edu)

## Tutors

- Mitch O'Hara-Wild
- Puwasala Gamakumara
- Sayani Gupta

# Brief bio

- Professor of Statistics, Monash University
- Editor-in-Chief, *International Journal of Forecasting*

## How my forecasting methodology is used:

- Pharmaceutical Benefits Scheme
- Cancer incidence and mortality
- Electricity demand
- Ageing population
- Fertilizer sales

[robjhyndman.com](http://robjhyndman.com)

# Unit objectives

- 1 To obtain an understanding of common statistical methods used in business and economic forecasting.
- 2 To develop the computer skills required to forecast business and economic time series data;
- 3 To gain insights into the problems of implementing and operating large scale forecasting systems for use in business.

## Teaching and learning approach

Two 50 minute classes and a one 80 minute computer lab session each week for 12 weeks.

R



RStudio



# Key reference

**Hyndman, R. J. & Athanasopoulos, G. (2019)**  
***Forecasting: principles and practice*, 3rd edition**

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**[OTexts.org/fpp3/](https://otexts.org/fpp3/)**

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- Free and online
- Data sets in associated R packages
- R code for examples



# Outline

Week	Topic	Chapter
1	Introduction to forecasting and R	1
2	Introduction to forecasting and R	2
3	Time series graphics & decomposition	3,6
4-5	Exponential smoothing	7
6-8	Forecasting with ARIMA models	8
9-10	Multiple regression and forecasting	5
11	Dynamic regression	9
12	Advanced methods	11

# Assessment

- Nine short weekly assignments, worth 2% or 4% each.
- One project due at the end of the semester, worth 20%.
- Exam (2 hours): 60%.

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Project	Fri 31 May	20%
Final exam	Official exam period	60%

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- Need at least 50% for exam, and 50% for total.

# Moodle site

- Includes all lecture notes, handouts, assignments
- Forum for asking questions, etc.
- Assignment submissions



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Projects

Pricing

My Class

750 XP



INTERACTIVE COURSE

## Introduction to R

Start Course For Free



4 hours | 0 Videos | 62 Exercises | 1,138,111 Participants | 6,200 XP | Download the app:

- All students must complete this course by Monday 11 March.



What would you like to learn today

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Practice

Projects

Pricing

My Class

750 XP



INTERACTIVE COURSE

## Introduction to the Tidyverse

Start Course For Free

Play Intro Video



4 hours | 16 Videos | 50 Exercises | 55,565 Participants | 4,150 XP | Download the app:  

- All students must complete this course by Monday 18 March.



- The IIF provides a prize to the top student in this subject each year.
- US\$100 plus one year membership.