



# *Data Mining with Weka*

Department of Computer Science  
University of Waikato  
New Zealand

[weka.waikato.ac.nz](http://weka.waikato.ac.nz)

# What is the course about?

- Data Mining
  - Using data to make predictions
- Weka
  - Open source software tool
  - Developed at *The University of Waikato*



The screenshot shows the University of Waikato Online Courses website. The header includes the university logo and name, and navigation links for Home, FAQ, Forum, Video Lectures, Weka, Data Mining Book, Blog, and Twitter. The main content area features a welcome message for the 'Data Mining with Weka' course, a description of the 5-week MOOC, and a list of course features. A 'Go to Course' button is located at the bottom right. A screenshot of the Weka Explorer software interface is shown on the right, displaying a data table and a histogram.

THE UNIVERSITY OF  
**WAIKATO**  
*Te Whare Wānanga o Waikato*

Online Courses

Home FAQ Forum Video Lectures Weka Data Mining Book Blog Twitter

Welcome to the free online course  
*Data Mining with Weka*

This 5 week MOOC will introduce data mining concepts through practical experience with the free Weka tool.

The course features:

- video lectures by [Professor Ian H. Witten](#) (available on YouTube and YouKu)
- the open-source Weka data mining platform
- access to chapters from [Data Mining \(3rd Edition\)](#)
- online assessment leading to a completion certificate

Go to Course

Weka Explorer

Preprocess | Classify | Cluster | Associate | Select attributes | Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Filter: Choose: None Apply

Current relation: Relation: Class Instances: 214 Attributes: 10 Sum of weights: 214

Selected attribute: Name: R1 Type: Numeric Missing: 0 @D0 Distinct: 178 Unique: 145 @D0

Statistic	Value
Minimum	1.511
Maximum	1.514
Mean	1.510
StdDev	0.003

Class: Type (nom) Visualize All

Status: OK Log

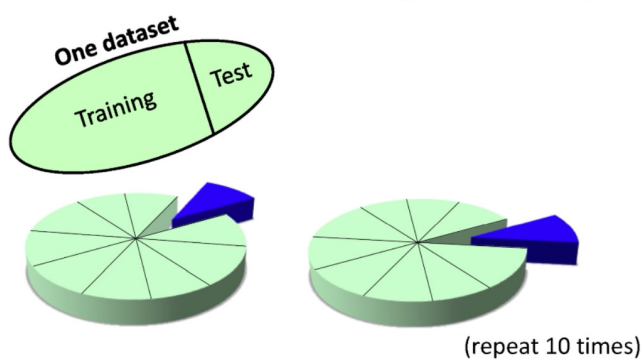


# What is in the course?


- Video lessons
  - Captions & Slides
- Practical exercises with *Weka*
- Readings from *Data Mining* book
- Assessment
  - Mid-term, final test → Completion certificate

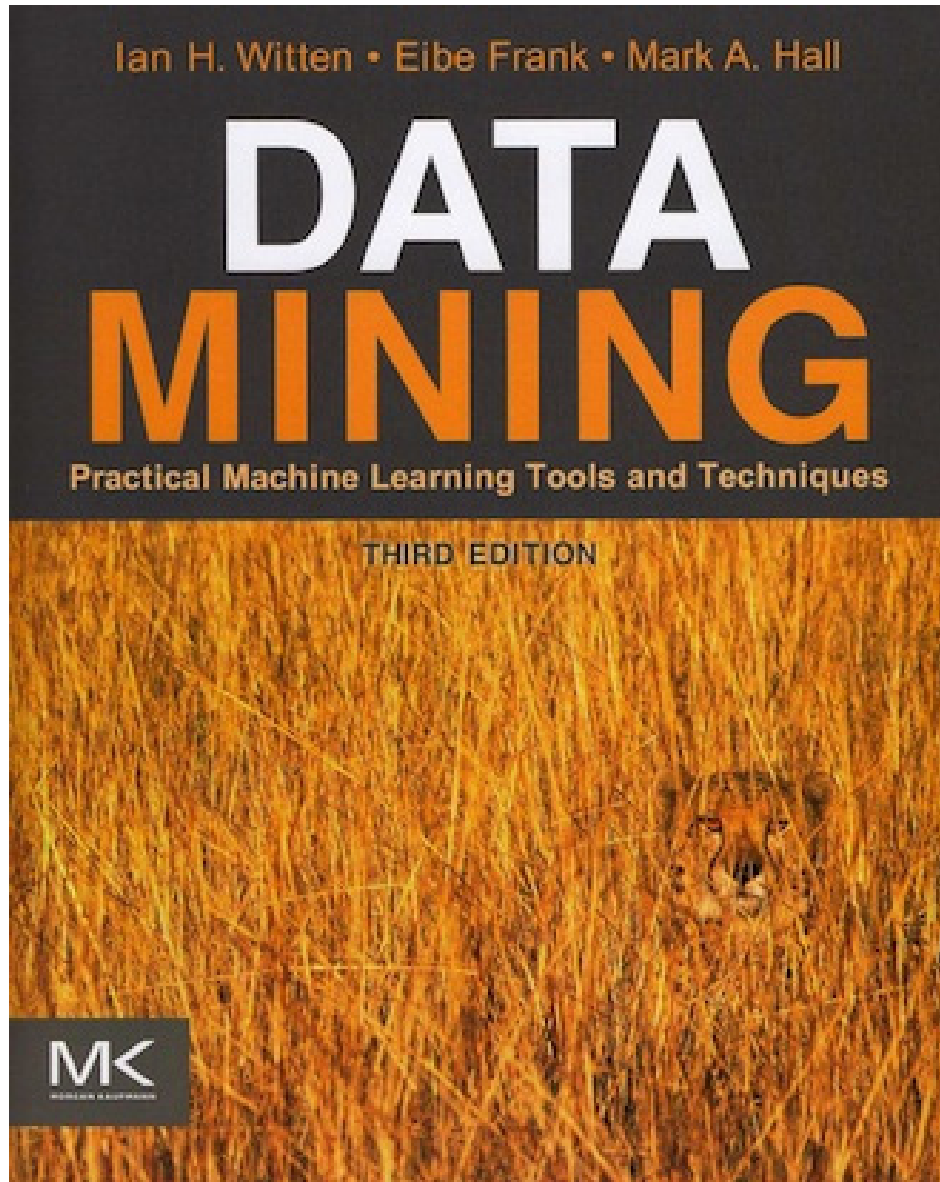
**Lesson 2.5: Cross-validation**

❖ Repeated holdout  
(in Lesson 2.1, hold out 10% for testing, repeat 10 times)



6





Witten, I.H., Frank, E. & Hall, M.A. (2011) *Data Mining: Practical Machine Learning Tools and Techniques*, Third Edition. Morgan Kaufmann.

Extracts from *Data Mining* will be available within the course

# What will I need for the course?

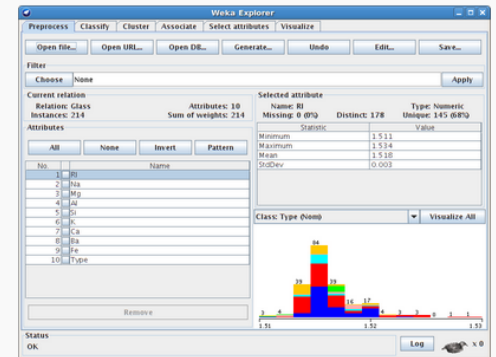
- Google Account
- Computer to install *Weka*
  - Windows, Mac or Linux
- 3-5 hours/week for 5 weeks
- High school mathematics
- No programming experience needed

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