

IB9BW-15 Analytics in Practice

26/27

Department

Warwick Business School

Level

Taught Postgraduate Level

Module leader

Nursen Aydin

Credit value

15

Module duration

5 weeks

Assessment

40% coursework, 60% exam

Study location

University of Warwick main campus, Coventry

Description

Introductory description

The module aims to provide an understanding of how analytics projects are structured from start to end.

[Module web page](#)

Module aims

To become familiar with the cross-industry standard process for data mining and analytics. To be able to structure and conduct an analytical project including visualisation and communicating the project's results to the end-user.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

This module is dedicated to conveying a sense of how to structure analytic projects systematically, from understanding of the business problem over modelling up to model assessment and communication of the project's results.

This module introduces a way of such a structure with an applied, step-by-step introduction that mixes theory and practical, hands-on implementation tasks:

- Introduction to data mining and CRISP-DM.
- Data collection, understanding data
- Integrating and cleaning data, deriving and reclassifying fields
- Introduction to predictive modelling with decision trees, oversampling, partitioning
- Model understanding, comparing and combining models, model assessment and model deployment

Learning outcomes

By the end of the module, students should be able to:

- Demonstrate understanding of how to structure data mining projects systematically.
- Demonstrate an awareness of challenges in predictive modelling and how to address them.
- Critically evaluate the performance of predictive analytics models and data products.
- Identify potential problems in data sets (data cleaning).

Indicative reading list

[Reading lists can be found in Talis](#)

Subject specific skills

Perform basic data extraction, cleansing and manipulation tasks.

Visualise data in suitable formats.

Conduct basic predictive modelling analysis on realistic data.

Identify potential problems in data sets (data cleaning).

Transferable skills

Work within a team to analyse data issues and propose solutions.

Communicate analytic findings to a non-technical audience

Communication skills

Study

Study time

Type	Required
Online learning (scheduled sessions)	10 sessions of 1 hour (7%)
Other activity	18 hours (12%)
Total	150 hours

Type	Required
Private study	49 hours (33%)
Assessment	73 hours (49%)
Total	150 hours

Private study description

Self study comprising of preparation for assessment and pre-reading for lectures

Other activity description

9 x 2 hrs F2F practical class

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group D4

Assessment component	Weighting	Study time	Eligible for self-certification
Group Presentation and Report Group presentation and report (2000 words)	40%	29 hours	No

Reassessment component is the same

Assessment component	Weighting	Study time	Eligible for self-certification
Centrally-timetabled examination (On-campus)	60%	44 hours	No

- Students may use a calculator
- Answerbook Pink (12 page)

Weighting **Study
time**

**Eligible for self-
certification**

Reassessment component is the same

Feedback on assessment

Feedback via My.WBS

[Past exam papers for IB9BW](#)

Availability

Courses

This module is Core for:

- Year 1 of TIBS-NI01 Business Analytics and Artificial Intelligence