

WM9A5-15 Digital & Data Science Consultancy

22/23

Department

WMG

Level

Taught Postgraduate Level

Module leader

Liping Zheng

Credit value

15

Module duration

2 weeks

Assessment

Multiple

Study locations

University of Warwick main campus, Coventry Primary

Distance or Online Delivery

Description

Introductory description

Digital and Data Science technologies have grown significantly in the last decade in terms of both organisational adoption and their importance to operational practices. Equally, however, such technologies have grown in complexity and sophistication. As a consequence, many organisations can struggle to identify the opportunities available to them through digitalisation and machine learning, and to effectively implement and optimise these solutions.

In such a climate, there is an increasing demand for eBusiness professionals who have both a thorough technical understanding of digital/data technology, and the ability to effectively communicate with key stakeholders to build comprehensive requirements and design successful implementations. These professionals can be external to the organisation (e.g. management consultancy firms), but there is also similar demand for staff to act as internal-consultants.

Module aims

The principal aim of the module is to give participants exposure to the varied workload and challenges associated with delivering digital and data science projects in the real world. Alongside

the taught curricula, participants will engage in a hands-on simulation of a consultancy project to incorporate all of the key elements and milestones - from client requirements and requirements elicitation, through to data exploration and initial analyses, before delivering a final, full project plan and timeline.

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.

What is Digital & Data Science Consultancy?

- Business Analysis and Requirements a. Business Analysis b. Systems Thinking c. Requirements Gathering and Elicitation

Project Scoping and Engagement Management

- Project Scoping and Design
- Project Management for Consultancy Projects
- Digital Solutions for Consultancy Projects

Solution Design and Implementation

- Determining the Problem/Solution Space
- Decision Science & Multi-Criteria Decision Analysis
- Data analysis and solution matching
- Solution Implementation
- Change Management

Capstone Project a. Industry Case Study b. Digital Consultancy Simulation c. Client Presentations

Learning outcomes

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

- Demonstrate a comprehensive understanding of digital and data science consultancy concepts
- Interpret and evaluate complex organisational problems and requirements
- Critically analyse advanced data technologies and evaluate their suitability to specific use cases
- Demonstrate a sound conceptual understanding of the forefront of digital & data science consultancy practice and their application in real-world scenarios
- Critically evaluate the systematic and operational risks associated with digital transformations and develop comprehensive mitigation strategies

Indicative reading list

[View reading list on Talis Aspire](#)

Interdisciplinary

A mixture of technology/computing topics, statistics, and business topics

International

Topics are of high international demand

Subject specific skills

Digital transformation, multi-criteria decision analysis, soft systems and decision analysis, consultancy practice, project planning

Transferable skills

Consultancy skills, project management, communication skills, teamwork

Study

Study time

Type	Required
Lectures	14 sessions of 1 hour (9%)
Seminars	10 sessions of 1 hour (7%)
Practical classes	6 sessions of 1 hour (4%)
Online learning (independent)	15 sessions of 1 hour (10%)
Assessment	105 hours (70%)
Total	150 hours

Private study description

No private study requirements defined for this module.

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 A1

	Weighting	Study time
Retrospective A presentation/demonstration of the achieved work and a reflection on the project plan and how it can be improved	20%	30 hours
Post Module Assingment A business-style report discussing core topics in digital & data science and consultancy	60%	45 hours
Creation of online project tools Development of online tools such as Kanban boards, wikis and similar to support the project plan	20%	30 hours

Assessment group R1

	Weighting	Study time
Post Module Assingment A business-style report discussing core topics in digital & data science and consultancy	100%	

Feedback on assessment

Verbal feedback for in-module element. Written feedback and annotated scripts for post-module element

Availability

Courses

This module is Optional for:

- Year 1 of TWMS-H1S4 Postgraduate Taught e-Business Management (Full-time)