





Certificate in Digital Transformation

This certificate will be offered subject to a sufficient number of student registrations

Module 1: Business Model Innovation & Digital Transformation (BMI968)

Course Purpose & Objectives

The course aims to:

- Introduce students to digital transformation and its impact on business model innovation.
- To help students understand the importance of business model innovation at the center of value creation and competitive advantage creation.
- To develop student knowledge and understanding of the role of digital technology in being a key enabler of business efficiency to becoming a fundamental driver of strategic innovation.

Learning Outcomes

On successful completion of this course, students should be able to:

- Explain the importance of business models to value creation and venture success in today's economy
- Analyse and critically evaluate business models used by actual ventures
- Describe, compare, and critically examine different business model frameworks
- Construct and present a business model for an innovative and viable new venture
- Design and conduct tests for different business model blocks, iterating based on market feedback and test results

Course Content

- Week 1: Introduction
- Week 2: Digital transformation and its strategic importance for business development
- Week 3: The concept and frameworks of digital business models
- Week 4: Digitalization: Shifting from a supply-driven to a demand-driven Economy
- Week 5: Guest Lecture
- Week 6: Platforms: Community-based digital business models
- Week 7: Emerging technologies for businesses
- Week 8: The internet of things (IoT) as a driver for digital business model innovation
- Week 9: Machine-Learning: the role of AI in a demand-driven Business Model

- Week 10: Transforming existing business to succeed in a demand-driven economy
- Week 11: Building a demand-driven business model
- Week 12: Digitization of value chains and ecosystems
- Week 13: Guest Lecture
- Week 14: Data as a competitive advantage: Marketing in a demand-driven business model
- Week 15: Data collection and data utilisation for new product development
- Week 16: Transforming organisations: from digital to demand-driven
- Week 17: Changes in markets
- Week 18: Competition and technology
- Week 19: Case Study
- Week 20: Business Models and comparison
- Week 21: Service markets: digital business models and international expansion
- Week 22: The impact of GDPR on future business models
- Week 23: The road ahead
- Week 24: Group Presentations
- Week 25: Revision
- Week 26: Revision
- Weeks 27-28: Examinations

Module 2: Data Analytics (DAA971)

(This module requires knowledge of research fundamentals and principles or relevant working experience)

Course Purpose & Objectives

The course aims to:

- Ensure that students develop a good understanding of the main methods used to analyse qualitative and quantitative data
- Allow students to practise cleaning and organizing data for analysis, and complete analysis and calculations using statistical data analysis tools
- Provide the necessary skills and competencies to allow students to justify methodological and data analysis decisions
- Develop the ability to effectively communicate their research ideas, knowledge and research findings

Learning Outcomes

On successful completion of this course, students should be able to:

- Demonstrate good knowledge of data analysis methods and understand the importance of choosing the most suitable methods of data analysis
- Apply qualitative methods of data analysis on data of different structure and content and interpret and present research findings
- Employ statistical analytical skills to test assumptions, and to generate new information and insights
- Integrate knowledge and data gleaned from research into creative solutions
- Appreciate the socio-technical mechanisms for the governance of AI systems.

Course Content

- Week 1: Introduction to methods of Data Analysis
- Week 2&3: Workshops: Analysing and Presenting Qualitative Data
- Week 4: Developing a Questionnaire & Reliability Testing
- Week 5&6: Quantitative methods of Data Analysis: Descriptive & Inferential Statistics

- Week 7: Workshops: Analysis of Quantitative Data using statistical tools: Organizing Data, Creating Tables & Charts
- Week 8: Workshops: Summary Statistics Measures of Central Tendency & Variability
- Week 9&10: Presentations: Presenting your research idea
- Week 11&12: Workshops: Inferential Statistics: Correlation, Regression, ANOVA, T-tests
- Weeks 13: Revision
- Week 14: Submission of Research Proposal