## COURSE DETAILS

**Course Code:** F21EC  
**Full Course Title:** e-Commerce Technology  
**SCQF Level:** 11  
**SCAF Credits:** 15  
**Available as Elective:** No

## DELIVERY LEVEL

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**Additional Information:**

## COURSE AIMS

- To impart an understanding of e-Commerce technology and of how Information Systems play a fundamental role in shaping e-Commerce;  
- To provide technical know-how for developing, managing and evaluating the different types of e-Commerce;  
- To provide analytical skills to examine and optimise the technical aspects of e-Commerce;  
- To equip students with skills for the effective implementation of cyber-security measures to protect e-commerce platforms, following industry standards;  
- To enable students to acquire knowledge in using data analytics to support the e-marketing and CRM components of e-Commerce;  
- To provide a description of technological challenges and innovations in e-Commerce;  
- To impart an understanding of the integration and the interoperability aspects of e-Commerce in the whole business system.

## LEARNING OUTCOMES – SUBJECT MASTERY

- Critical understanding of the different types of business models, revenue models and business systems used in e-Commerce;  
- In-depth and practical knowledge of the use of web related technologies that enable e-Commerce applications;  
- Insights into the implementation of strategic and standard security measures to protect e-Commerce platforms;  
- Demonstrate comprehension and practice in the application of data analytics to enable rich customer experience.
LEARNING OUTCOMES – PERSONAL ABILITIES

- Can deal with complex issues and make informed judgements about the use of web based technologies in e-Commerce;
- Can independently carry out research based on literatures in the field of e-Commerce technology;
- Can evaluate real-world e-Commerce and propose technical solutions to different business scenarios.

- Exercise substantial autonomy, initiative and creativity in the application of technologies for the development of e-Commerce applications;

- Can communicate and work with peers, more senior colleagues and specialists and demonstrate critical reflection (PDP);

SYLLABUS

- Introduction to e-Commerce and overview of its technology

- E-Commerce technologies:
  - Web architectures and Infrastructures (e.g. web services and cloud computing)
  - Enterprise Data Management (e.g. centralised and distributed databases)
  - Data Analysis and Modelling in E-Commerce
  - Machine Learning, Recommender Systems and Personalisation
  - E-Marketing Strategies
  - Security risks in e-Commerce processes. Implementation of security industry standards

- E-Commerce management:
  - Business Process Modelling Languages
  - Types of E-Commerce and Revenue models
  - E-Commerce workflow, merchant transactions and order fulfilment
  - Supply Chain Management and Demand Chain Management
  - Crypto-currency and Digital Payment Systems
  - Legal, Ethical and Tax Issues in E-Commerce

COURSE RELATIONSHIPS

N/A

LOCATION AND ASSESSMENT METHODS

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