**COURSE DETAILS**

<table>
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<th>Course Code: F21EC</th>
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<tr>
<td>Full Course Title: e-Commerce Technology</td>
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<tr>
<td>SCQF Level: 11</td>
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<tr>
<td>SCAF Credits: 15</td>
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<td>Available as Elective: No</td>
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**DELIVERY LEVEL**

| Undergraduate: Yes | Postgraduate Taught: Yes | Postgraduate Research: No |

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.
F21EC e-Commerce Technology

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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