**1. Course Code**: F21DE  
**2. Course Title**: Digital and Knowledge Economy  
**3. SCQF Level**: 11  
**4. Credits**: 15

**5. School**: Mathematical and Computer Sciences  
**6. Course Co-ordinator**: Jessica Chen--Burger

**7. Delivery: Location & Semester**  
- **Edin**: SBC  
- **Orkney**:  
- **Dubai**: IDL  
- **Collaborative Partner**:  
- **Approved Learning Partner**:  

**8. Pre-requisites**: Fundamentals of logic, grasp of computational thinking

**9. Linked Courses (specify if synoptic)**: None

**10. Excluded Courses**: None

**11. Replacement Courses**  
- **Code**:  
- **Date Of Replacement**:  

**12. Degrees for which this is a core course**: MSc Business Information Management, MSc IT (Business) Option for BSc Information Systems

**13. The course may be delivered to**: UG only ☐  PG only ☐  UG & PG ☑

**14. Available as an Elective?**: Yes ☑  No ☐

**15. Aims**

To provide an overview of advanced topics in Digital and Knowledge Economy, including current developments and future trends in developed economies resulting from deploying new technologies and utilising emerging knowledge.  
To discuss e-Business, as a new breed of modern business model that leverages technical advancements to create economic growth.  
To provide a high level description of business and technological issues related to Digital and Knowledge Economy.  
To introduce technologies and methodologies so as to provide a deep understanding of the Digital and Knowledge Economy, including business, organisational, knowledge and technology based issues.  
To impart rigorous technical modelling and analytical methodologies for working with complex problems in this area.  
To facilitate the dialogue between business and computing personnel, and translate business requirements to computing ones and vice versa.  
To impart deep understanding of the motivation and rationale behind the conversations between business and IT, as well as other relevant technologies and future trends - so that students can recommend them and/or participate in the decision making process for future planning.

**16. Syllabus**

- **Introduction to Digital and Knowledge Economy**  
  - Introduction to Digital and Knowledge Economy  
  - Its relevance to e-Business  
- **Topics in Digital Economy**  
  - An overview of technologies and tools for e-Business  
  - What is a business model? What are the different types of business models?  
  - What are the relationships between business models and innovative/disruptive technologies?  
  - Current development and future trends in Digital and Knowledge Economy
17. Learning Outcomes (HWU Core Skills: Employability and Professional Career Readiness)

Subject Mastery

Understanding, Knowledge and Cognitive Skills

- In-depth understanding of key issues in Digital and Knowledge Economy.
- In-depth understanding of ontologies, conceptual and knowledge modelling technologies, in terms of design, critical evaluation and suitable practical uses.
- In-depth understanding of issues in intelligent systems, supply chain management and business intelligence and the roles technologies may play.
- In-depth understanding of issues and the motivation and rationale of business and technical problems in Digital and Knowledge Economy.
- Ability to select and construct conceptual models, including ontologies, and can create appropriate evaluation criteria to assess them.
- Ability to take self-initiatives to critically review relevant literature independently in Digital and Knowledge Economy.

Scholarship, Enquiry and Research (Research-Informed Learning)

Personal Abilities

Industrial, Commercial & Professional Practice

- Extensive analytical skills in conceptual modelling methods, including ontologies, process and knowledge modelling, for business problems.
- Ability to make well-informed evidence-based arguments towards supporting or rejecting technologies to solve business problems.
- Ability to deal with complex issues and make informed judgements, e.g. about ontologies, knowledge modelling, intelligent and business systems in the absence of complete or consistent data.
- Exercise extensive autonomy and initiative in addressing digital and knowledge economy challenges.
- Demonstrate critical reflection on digital and knowledge economy.
- Ability to judge technology hypes and develop personal opinions on future trends.

18. Assessment Methods

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<th>Weighting (%)</th>
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19. Re-assessment Methods

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20. Date and Version

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