



Postgraduate Certificate in Blockchain Management

MQF/EQF Level 7

Course Outline

Duration: 6 months

Overall Course Objectives

The learning outcomes presented below have been defined in line with the descriptors for the Level 7 of the Malta Qualification Framework.

Knowledge:

- Has a comprehensive and critical understanding of the principal current research issues in the specialisation area;
- Possesses multi-disciplinary theoretical and practical knowledge of management within the domain of the specialisation area.

Skills:

- Demonstrates capability in using knowledge and skills of the specialisation area to adapt to the fast-changing business environment and to efficiently manage people and projects within the specialisation area;
- Possesses specialised problem-solving skills in the specialisation area required to develop new knowledge and procedures to solve practical problems;
- Develops new skills in response to emerging knowledge and techniques in the domain of the specialisation area including digital skills and use of modern technologies;
- Demonstrates specialised knowledge of management that includes reflecting on social and ethical responsibilities linked to execution of the managerial function.

Competencies:

- Demonstrates autonomy in the direction of personal development and lifelong learning applicable to the business environment;
- Manages and transforms work or study contexts in the field of specialisation that are complex and unpredictable and require new strategic approaches;
- Has the learning skills to allow continuation to study the specialisation area in a manner that may be largely self-directed or autonomous.

COURSE OUTLINE

Tokenomics and Cryptocurrency Markets

This unit prepares students to professionally understand tokenomics and cryptocurrency markets. The new informal institutions of international algorithmic interaction are rapidly developing in the digital world; in this environment it is crucial to have a sound awareness of the economic entities' algorithmic relations and of the token value management process. The unit examines major aspects of tokenomics and the cryptocurrency markets, such as market infrastructure, token circulation, and cryptocurrency rating. Upon completion of the unit, students will be able to evaluate risks associated with using tokens and operating on cryptocurrency markets, and to conduct autonomous research about tokenomics and cryptocurrency markets using macroeconomic indicators or benchmarks.

Competencies

- Create a research-based diagnosis to the role of base accounting units (tokens) in business processes and to problems related to cryptocurrency markets operations by analysing the role of tokens in the business model through appraisal of the technological, legal and economic forces that affect business performance;
- Demonstrate autonomy in the direction of learning by identifying the theoretical approaches and tools necessary for planning and decision-making in the context of economic tokenisation at micro and macro level;
- Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches by choosing the most effective ways to implement the token in business processes;
- Demonstrate the ability to respond to the fast-changing business environment when working in complex and unpredictable situations related to cryptocurrency exchanges, decentralised exchange services and OTC exchanges.

Blockchain Technology and Platforms

The unit introduces students to the main aspects of blockchain technology and practical implementation cases of different blockchain platforms. Students will gain an understanding about the way blockchain technology stores and processes information and will learn about distributed systems and the advantages of smart contracts. Blockchain technology can complement other breakthrough technologies and provide fundamentally new solutions in various business areas. Therefore, this unit covers the blockchain technology concepts that can bring significant change to business operation processes, increase the overall effectiveness, and help companies to succeed in the competitive business environment. Upon completion of the unit, students will be able to differentiate between different features and characteristics of blockchain technologies and platforms and take decisions associated with business processes transformation and innovation.

Competencies

- Create a research-based diagnosis to problems associated with the implementation of blockchain technology by professionally reviewing and comparing different blockchain platforms and their technical characteristics;
- Take responsibility for contributing to professional knowledge and practice by integrating knowledge about blockchain technology and by assessing how blockchain technology may complement other emerging technologies and provide solutions to different business matters;
- Manage blockchain technology projects and demonstrate the ability to respond to the fast-changing business environment by administering and evaluating the implementation of ongoing developments and applications of blockchain technology for gaining a competitive advantage in the turbulent business environment;
- Manage and transform contexts that are complex and unpredictable and require new strategic approaches by reviewing the theoretical approaches and tools necessary for blockchain technology implementation and by examining best practices related to blockchain platforms' use and application.

Business Models and Entrepreneurship in Blockchain

This unit develops skills and competencies to prepare business students to successfully use blockchain technology solutions in their professional or entrepreneurial career and reviews various blockchain business models and use cases taking into consideration the technological side, business model and financial plan, investment attraction strategy, and other elements. This unit provides students with the concepts necessary to individually succeed and be capable to develop blockchain business models that will help to increase productivity, efficiency and effectiveness of organisations. Upon completion of the unit, students will be able to analyse external and internal environment in terms of potential opportunities and threats for implementing blockchain projects and recognise entrepreneurial opportunities offered by blockchain technology.

Competencies

- Take responsibility for contributing to professional knowledge by identifying a specific need or problem in a particular industry or company that can potentially be solved by using blockchain technology and provide recommendations for implementing these solutions;
- Has the learning skills to allow continuation to study in a self-directed manner business models based on blockchain technology and to synthesise business planning elements into a big strategy that facilitate achievement of organisational goals;
- Demonstrate the ability to respond to the fast-changing business environment by recognising opportunity gaps in the blockchain business landscape.

Blockchain and Crypto-Economy Regulation & Governance

This unit provides students with the regulatory and governance frameworks associated with the emergence of blockchain, crypto-assets, distributed ledger technologies, and fintech. Students analyse and evaluate the development of government regulation and industry self-regulation along with practice standards and codes of conduct in the blockchain industry and in some specific contexts of the crypto-economy. Upon completion of the unit, students will have acquired the responsibility for contributing to professional practice while solving management issues associated with the use of blockchain technology by analysing, synthesising, and evaluating various blockchain and crypto-economy regulatory solutions.

Competencies

- Manage strategic blockchain projects and demonstrate the ability to respond to the fast-changing regulatory environment around blockchain industries globally by identifying global regulatory needs of different kinds and local approaches to global challenges within emerging xTech industries;
- Take responsibility for contributing to professional practice while solving management issues associated with the use of blockchain technology and analysing, synthesising, and evaluating various blockchain and crypto-economy regulatory solutions;
- Be accountable for integrating knowledge from different legal and technological areas, such as GDPR and cybersecurity in order to make judgements on potential performance of different current and future regulatory changes with incomplete or limited information.

Business Intelligence in the Era of Big Data and AI

Capturing value from data is the new normal and transformational lever towards more digital and sustainable societies. Big data and Artificial Intelligence arise as the newest foundational elements: the former enables the possibility to manage unprecedented volume of data, variety of data sources, and velocity of data update ingested by new technologies while the latter facilitates the intelligent processing of information (without human intervention in most cases) to capture value added information to streamline processes and enhance current services or products. This unit will equip students with a fundamental understanding of the approaches to Business Intelligence and to the new data-driven business models. Upon completion of the unit students will demonstrate capability in using knowledge and skills of Big Data and Artificial Intelligence in implementing a Business Intelligence strategy in the fast-changing data-driven business ecosystem.

Competencies

- Take responsibility for contributing to professional knowledge by being a driver of adoption and implementation of Big Data and Artificial Intelligence technologies in organisations;
- Take responsibility for initiating strategic actions grounded on Business Intelligence diagnosis and for leading an organisation into a new direction;
- Has the learning skills to allow continuation to study new technological trends in Big Data and Artificial Intelligence and to evaluate their impact in a manner that may be largely self-directed or autonomous;
- Manage and transform work or study contexts that are complex and unpredictable that require new strategic approaches by using data analytics techniques and artificial intelligence solutions for business.