



Postgraduate Diploma in Blockchain Management

MQF/EQF Level 7

Course Outline

Duration: 9 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 comprehensive specialised knowledge and understanding of how cultural, economic, political, and technological frameworks affect management practices and how they can be managed effectively;
- Identifies and evaluates theoretical approaches necessary for planning and decision-making in business. These include ideas that support the modelling and management of the decisions across the broad range of functional areas;
- Has relevant knowledge of organisations, and their role in pursuing sustainable business in the context in which they operate and how they are managed in compliance with codes of ethics and Corporate Social Responsibility;
- Has a comprehensive and critical understanding of the principal current research issues in management.

Skills:

- Performs critical evaluation and analysis of business environment and of the main concepts, structures and approaches of strategic business management with incomplete or limited information;
- Demonstrates capability in using specialised skills to make decisions and create global strategies in different business operations, digital transformation, and finance in order to adapt to fast-changing business environment;
- Demonstrates leadership skills necessary to empower, inspire and manage teams, innovation and creative problem-solving while managing a business;
- Develops new skills in response to emerging knowledge and techniques in the domain of business management including digital skills and use of modern technologies;
- Demonstrates capability in using knowledge and skills of management to conduct research, taking into account the need for synthesis, setting objectives, methodological process and application of strategies;
- Develops an ability to identify and assess risks relating to the business, digital and financial environment and to design strategies to mitigate specific managerial risks;
- Monitors and maintains compliance with appropriate business regulations and formulates practical responses to the legal and external environment challenges associated with operating a business;
- Demonstrates capability in using data referring to business analytics to better forecast and execute business strategies and operations;
- Demonstrates specialised knowledge of management that includes reflecting on social and ethical responsibilities linked to execution of the managerial function;
- Demonstrates capability in using knowledge and skills of management to conduct research within a specific industry or functional area of a personal professional interest, taking into account the need for synthesis, setting objectives, methodological process and application of strategies.

Competencies:

- Demonstrates the ability to respond to the main political, economic, social, and technological variables and to formulate the priorities and strategies necessary for an organisation to succeed considering the global outlook and trends;
- Manages business projects by establishing a global vision that incorporates every facet of business development and constructs innovation and cultural diversity as an advantage in business contexts that are complex and unpredictable and require new strategic approaches;
- Is accountable for managing people and practicing management with commitment to democratic values and sustainability adopting the practices based on learning, service and social inclusion;
- Demonstrates autonomy in the direction of personal development and lifelong learning applicable to the business environment;
- Engages in critical analysis in the area of management and demonstrates independent thought, evaluation and problem-solving underpinned by evidence-based arguments;
- Takes responsibility for contributing to professional knowledge in management or a specific industry/functional area of a personal professional interest by identifying an existing business problem and by conducting original research.

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.

Effective Teamwork and Project Management

This unit focuses on the issues surrounding the management of teams and projects. This is achieved by providing a specialised knowledge of organisational behaviour and factors that influence people's behaviour at work and how these factors link to performance in projects. The unit discusses an integrated approach to managing teams and projects as well as explores both technical and managerial challenges. Upon completion of the unit students will demonstrate capability in analysing workplace scenarios with the purpose to improve workforce and organisational performance and will develop applied project management skills and an ability to plan, implement, manage, and successfully achieve project objectives.

Competencies

- Take responsibility for transforming work or study contexts by leveraging individual differences, group dynamics and organisational culture and design and by balancing multiple objectives in ways that are accountable and achievable;
- Take responsibility for adapting the management of people and projects reflecting on the dynamic nature of the environment in which one operates;
- Effectively manage teams and projects and demonstrate the ability to respond to the fast-changing business environment when managing project risks, project execution, and project control.

Digital Transformation, Innovation and Technology

This unit will equip students with a fundamental knowledge of the new digital economy and will provide an understanding of how the digital economy is shaping strategic options for managers, including the new technological driving forces, digitalisation, and the new challenges. Students will analyse the impact of digital transformation on society and businesses and assess to what extent technology can be used to create meaningful and positive innovative solutions to different issues. Upon completion of the unit, students will have knowledge and skills of digital transformation, innovation and technology and will be able to find solutions to the challenges of leading and managing innovative and transformational processes in modern organisations.

Competencies

- Manage and transform work contexts that are complex and unpredictable and require new strategic approaches based on innovation and digital transformation, understanding of technology, and analysis of internal and external environment;
- Demonstrate the ability to respond to the fast-changing business environment by analysing emerging and disrupting technologies and by having a vision to detect technologies that are yet in an early maturity stage but have a potential to become disruptive;
- Demonstrate autonomy in the direction of learning of digitalisation and innovation processes by conducting independent research and analysis of economic data, articles, news, and expert opinions.

Final Project (Capstone)

A Final Project (Capstone) is a multifaceted assignment that serves as a culminating academic and intellectual experience for Master students. Students take what they have learned throughout the course of their Master's programme and apply it to examine a specific idea/problem within their area of specialisation. A Final Project involves the identification of an existing problem in a real-world setting and the application of learned skills and methods to develop a solution that addresses the problem directly. There are several options among which students can choose for developing their Final Project: either it may be geared toward research or may be more oriented toward problem-solving. Solutions offered by students are usually interactive and realistic, meaning they can be implemented and used either in professional life or in further research and study.

Competencies

- Create a research-based diagnosis to problems by integrating knowledge from new or interdisciplinary fields and make judgements with incomplete or limited information;
- Take responsibility for contributing to professional knowledge in a specific industry or functional area of a personal professional interest by identifying an existing business management problem and by developing theoretical approaches to possible solutions;
- Demonstrate autonomy in the direction of learning and a high level of understanding of learning processes in a specific industry or functional area of a personal professional interest;
- Have the business research skills to allow continuation to study a specific business management problem in a manner that may be largely self-directed or autonomous.