



Postgraduate Certificate in FinTech and Digital Banking

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

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.

International Banking, Insurance, and Financial Services

This unit provides an overview of the international banking system, including such topics as: the role of the banks in the financial system, regulatory and policy aspects, financial services offered by banks, and analysis of bank performance. Additionally, the unit provides students with a thorough understanding of insurance activities, including optimal insurance contract design under information asymmetry and moral hazard. Upon completion of the unit, students will demonstrate specialised knowledge of international banking and insurance that include reflecting on social and ethical responsibilities linked to operations in the financial services industry.

Competencies

- Manage and transform work or study contexts in the financial services industry that are complex and unpredictable and require new strategic approaches considering the changing characteristics of the banking and insurance sectors;
- Create a research-based diagnosis to problems in international banking and insurance by integrating knowledge from interdisciplinary fields such as finance and fintech;
- Has the learning skills to allow continuation to study international banking and insurance in a manner that may be largely self-directed or autonomous;
- Take responsibility for reviewing the performance of major financial organisations with the purpose to determine their financial health and prospects.

FinTech in Traditional and Innovative Business Models

In this unit students explore the challenges and opportunities created by FinTech for digital transformation in the traditional financial organisations as well as the emergence of new innovative business models in various areas of the financial industry and focus on how the technological advances in FinTech are enabling the financial sector innovations. Upon completion of this unit, students will demonstrate capability in using knowledge and skills of FinTech to master a new toolbox required to successfully compete in the financial industry and will be able to adapt to the fast-changing finance industry environment by reflecting on social implications caused by the spread of FinTech.

Competencies

- Demonstrate the ability to respond to the fast-changing financial industry environment affected by continuous emergence and spread of FinTech innovations;
- Create a research-based diagnosis to problems in financial management by integrating knowledge about FinTech solutions when developing new business models or upscaling existing business models in the financial industry;
- Demonstrate autonomy in the direction of learning of emerging FinTech technologies and a high level of understanding of learning processes;
- Manage and transform work or study contexts in business and finance that are complex and unpredictable and require new strategic approaches by integrating and using the most appropriate FinTech solutions suitable to solve a specific problem.

Algorithmic Finance and Big Data

This unit develops skills and competencies to prepare business students to successfully use algorithmic finance and big data analytics solutions in their professional career in the field of finance and to operate on capital markets affected by continuous digital transformation and automation. The unit examines major aspects of algorithmic finance technology, such as smart contract, crypto trading bots, high-frequency trading signals (HFT) as well as the impact of big data analytics on finance operations and reviews various use cases for applying machine learning or artificial intelligence solutions in financial management. Upon completion of the unit, students will be able to adapt to the fast-changing capital markets environment by relying on algorithmic finance principles and big data analytics in navigating complex psychological trappings in market behaviour and making smarter financial decisions.

Competencies

- Demonstrate the ability to respond to the fast-changing capital markets environment affected by continuous digital transformation and automation;
- Create a research-based diagnosis to problems in financial management by integrating knowledge from new fields such as blockchain, data science, artificial intelligence and machine learning and make judgements related to these fields with incomplete or limited information;
- Demonstrate autonomy in the direction of learning of emerging technologies used on capital markets and a high level of understanding of learning processes;
- Manage and transform work or study contexts that are complex and unpredictable that require new strategic approaches by using data analytics techniques, machine learning and artificial intelligence solutions for financial management.

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.