

Master of Business Analytics

The minimum requirement to graduate from the Master of Business Analytics program is 12 subjects. However, if you have completed a bachelor's degree in a relevant business area or a UOWD Graduate Certificate in Business, you may be able to complete the MBAS program in a total of ten (10) subjects in line with UOWD's policy on Credit for Prior Learning decided in consultation with UOWD's Faculty of Business office prior to the beginning of the program.

The typical structure of the program is shown below:

Core Business Management Subjects

Accounting and Financial Management

This foundation subject is intended for those who need to obtain some introductory understanding of the principles of accounting and financial management. No previous knowledge or experience is assumed. The subject will introduce you to the role that effective financial management makes within an organization. The aim is to increase your proficiency in the use of the accounting data that you receive in your work environment, as well as making you aware of the basis on which key financial decisions are made. You will be introduced to the basic concepts of financial decision-making and the role of financial management in organizations to allow you to become better acquainted with the planning and controlling of resources you have at your disposal. You will also learn how business analytics is influencing the different subdomains within accounting and financial management of an organization.

Operations Management

This course presents the foundations of Operations Management. Our focus is on understanding the design and management of conversion processes by which goods and services are transformed into products and services. This course is about managing resources and flows – flows of information, goods, services, materials, equipment, people and the accompanying costs. Goods and service providers must manage the highly interactive process of designing, producing, delivering, and disposing of products to assure success. In this course, the Business Analytics paradigm will be introduced; Business analytics combines data, technology, and mathematical models to help managers make better decisions, identify new opportunities, and become more competitive. Every aspect of business can benefit from using analytics, from understanding how customers behave to improving operation and financial performance. Combining Operations Management with Business Analytics will equip students with the mindset necessary to be able to classify various operations management problems, identify the nature of the information needed to be able to address the problem, translate these problems into the appropriate statistical and/or mathematical framework and interpret the results of the models in a verbal manner to the relevant stakeholders.

Principles of Marketing Management

The subject examines the concepts underpinning the marketing process and theories relevant to the study and practice of modern marketing science. Key concepts covered include the creation and delivery of customer value, customer retention and return on marketing investment, marketing's role in an organisation as defined by the overall strategic plan, and its integration with other functional disciplines within the organisation, elements of marketing plan, competitor analysis and strategies, marketing environment, marketing research, consumer and business buying behaviour, strategic nature of segmenting markets, targeting, and positioning brands, marketing mix decisions, and marketing ethics and social responsibility. The subject provides a foundation for the development of effective market-oriented managerial thinking, communication and team-work skills.

Organisational Behaviour and Management

This subject provides a comprehensive overview of management process and organisational behaviour for students to understand the foundations of management theory and the nature of human behaviour operating within organisations. The subject covers the history and contemporary analysis of management theory and concepts relating to: individual, group and organisational processes within business contexts. This subject enhances student's fundamental knowledge and learning skills in problem solving and decision making required to successfully engage with and complete further subjects within their postgraduate management degree. This subject also develops students' communication and teamwork skills and application of knowledge to analyse, consolidate and synthesise complex information.

Core Business Analytics Subjects

Essential Elements for Business Analytics

This subject introduces students to Statistical Learning and Business Data Analytics. Students are introduced to theoretical concepts of Statistical Learning and how to use these concepts in complex, big data Business Analytics. A specific business problem is used throughout the course to illustrate different aspects of statistical learning and business analytics. Understanding these business analytics outcomes is the main focus of this subject. The subject provides a solid basis from which Statistical Learning and Business Analytics techniques/tools can be applied to solve complex business problems. In addition, Visual Analytics software tools are introduced. This is first of the four subjects. An SAS Joint Certificate will be awarded when the four subjects are completed.

Techniques and Tools for Business Analytics

This subject is designed for students to further their training in Business Analytics. In-depth statistical learning and complex big data business analytics concepts are explored. Different big data business problems are chosen to demonstrate the in-depth concepts respectively. Techniques and tools are introduced and applied to help with the understanding of the in-depth concepts. Exploring different software tools under different circumstances to

investigate different aspects of a big data business problem is emphasised in this subject. Interpretations and deriving conclusions of those business analytics outcomes are the main focus of this subject. Visual Analytics software tools are used together with data mining. In addition, predictive software tools are introduced.

Business Analytics for Economic and Market Environments

This subject introduces students to Statistical Learning and Business Data Analytics. Students are introduced to theoretical concepts of Statistical Learning and how to use these concepts in complex, big data Business Analytics. A specific business problem is used throughout the course to illustrate different aspects of statistical learning and business analytics. Understanding these business analytics outcomes is the main focus of this subject. The subject provides a solid basis from which Statistical Learning and Business Analytics techniques/tools can be applied to solve complex business problems. In addition, Visual Analytics software tools are introduced. This is first of the four subjects. An SAS Joint Certificate will be awarded when the four subjects are completed.

Business Analytics for Services and Operations

This subject explores in-depth problems related to services and operations. Topics related to services and operations include cloud service, eHRM, social media, online business, financial services automation, manufacturing, retails and logistics. Massive business datasets are used to explore a range of business analytics scenarios related to services and operations. Data mining, especially text mining, products profiling, predictive forecasting and predictive analysis are the main focus. Visual analytics, data mining and predictive/forecasting software tools are used in this subject.

Advanced Business Analytics

Quality of predictive analysis and accuracy of predictive forecasting of business analytics outcomes are the main focus in this subject. Students explore the latest innovations and trends in Business Analytics including topics related to artificial intelligence, machine learning, text mining, etc. Innovative techniques and tools are introduced to cater for the need of the business analytics in new emerging industries. Different business problems are chosen to illustrate the effectiveness and applicability of these innovations and trends.

Business Analytics Electives

Digital Marketing

This subject deals with the issues facing digital marketers to establish the distinctly different environment in which consumers operate on digital platforms. This grounding is then used as a basis to build an understanding of the digital environment to key applications in marketing such as research, adding value in the areas of product, distribution, pricing and promotion. A

key focus is the link between delivering positive user experiences and developing customer relationships over time using digital marketing platforms.

Quantitative Economic Analysis

The aim of the subject is to equip students with a conceptual understanding of econometrics and its methodology. Specification, estimation and use of linear regression models will be discussed. Data relating to the UAE and other countries will be used to familiarize students with relevant and important aspects of the course's content. The course is divided into three main components. After a review of the underlying statistical theory, Classical Linear Regression Models will be discussed in-depth. This will include specification, estimation and evaluation of simple and multiple regression models. The second component deals with situations where the assumptions underlying the Classical Linear Regression Models are violated. Specifically, the course will cover problems of multicollinearity, heteroscedasticity and autocorrelation. The final component deals with more advanced topics such as ARMA Family models, VAR MODEL, unit root testing and forecasting using regression and time-series model

Supply Chain Analytics

The increasing amount of supply chain data in the rapidly expanding technological world of today makes the analysis of it much more exciting. This subject equips students with analytical models, methodologies and tools to support data-centric supply chain decision-making. Students will be able to verify and enhance existing operating models using quantitative techniques. The objective of this subject is to explore analytical methods for understanding and analyzing issues related to supply chain management where relevant analysis of data is needed. This course introduces students to a variety of modelling and optimization techniques for the analysis of strategic, tactical and operational supply chain problems such as demand forecasting, trend analysis, operational model designing, network analysis, logistics and transportation, and operational issues in new IT contexts. It provides hands-on learning for how to best analyze data derived from actual supply chain databases.

Capstone Project

Live or Simulated Industry Project on Business Analytics

This subject enables student to integrate learning from across the course, and apply the skills and insights learned to a real-world, contemporary workplace issue or opportunity facing anionization. It acknowledges that to confidently manage in complex business environments, managers need to investigate issues and opportunities from multiple perspectives, execute projects by drawing on relevant research principles and methods, make appropriate business decisions, and communicate effectively to relevant target audiences. Students conduct applied business research and make a series of informed recommendations for addressing the issue or opportunity, finally delivering a written report and presentation. This is second of the two Capstone subjects in Master of Business Analytics. An Advanced SAS Joint Certificate will be awarded when the two subjects are completed.