Master of Information Technology Management

The Master of Information Technology Management comprises of a total of 9 subjects that includes 6 core subjects, 2 elective subjects and a final project.

Students from a three year bachelor's degree or a four year program without a research component will be required to take additional two subjects decided in consultation with the faculty.

Core Subjects

Information Systems and Strategy

The subject is essentially about the application of technology for competitive advantage. Throughout the subject, the spotlight will be trained on techniques and frameworks for "thinking strategically about a company's technological orientation'. A wide spectrum of business and technology issues will be covered that address the problems and issues surrounding the analysis and development of an IT strategic plan.

IT Governance and Organizational Issues

Enterprise governance of IT resources and non-IT resources (including proper use of IT by organizational members) plays a critical role in achieving business goals and enabling efficiency gains or competitive advantage. This subject explores IT governance theory and practice, with particular attention to the Control Objectives for Information and Related Technologies (COBIT 5) framework, to understand the critical importance of achieving alignment of IT and business strategies and creating business value from IT-enabled business investments. Students will be exposed to various IT governance arrangements and in-depth case studies of COBIT 5 implementation for enterprise governance of IT and IT assurance. Moreover, students will uncover complex organizational issues which influence processes and outcomes of developing, monitoring and managing effective IT governance initiatives and related change projects in today's dynamically changing business environment.

Security, Ethics and Professionalism

This subject aims to provide students with a deep understanding of the security, risk management, and professional practice aspects, including ethical and social issues, of enterprises and organisations in the digital world. In today's world, organisations must be prepared to defend against threats in digital space. Decision-makers must be familiar with the principles and best practices of information security to better protect their organisations. This subject covers key issues in information security management, including security options, ethical and social issues, best practices, the regulatory environment and Government policy, risk management and control.

Project and Change Management

This subject mainly concerns the advanced knowledge of information technology (IT) project management to facilitate optimum utilisation of resources. It also focuses on the project scope change management in the context of project management. The subject will focus on managing IT projects in the organisational context in alignment with organizational strategy, structure, resources and culture. Topics and issues covered include project selection, project portfolio management, project leadership and project manager, scope management, scope change management, project team, risk management, cost estimation and budgeting, project scheduling, agile project management, resource management, project evaluation and project closeout.

Data Mining and Knowledge Discovery

Introduction to Data Mining, Knowledge Discovery, and Big Data with coverage of Data Structures, role of Data Quality and per-processing, Association Rules, Artificial Neural Networks, Support Vector methods, Tree Based Methods, Clustering and Classification Methods, Regression and Statistical Methods, Overfitting and Inferential issues, Evaluation, Use of Data Mining packages with applications for benchmark and real world situations.

Innovation and Design

Topics will be selected from: The creative and innovative process, aesthetics in design, life cycle design and planning. Design for economy, maintenance, disassembly, recycling, repair and rehabilitation. Designing with materials. Durability of materials, components, systems and structures. Intellectual property, patents and technology transfer. The international marketplace. Constraints on design: standards, specifications and codes of practice. Feasibility studies and costing Teamwork in design. Case studies.

Professional Practice and Research Project

On successful completion of the subject students will be able to conduct critical thinking, analysis, evaluate literature, develop a research proposal, discuss ethical consideration to conduct research, explain the role of professional code of conduct.

Choose any two Electives from the approved list below:

Enterprise Architecture Design

The principle purpose of this subject is to teach students how to translate enterprise information system strategy into infrastructure, with a focus on system architecture and integration. This subject includes an analysis of enterprise architecture design approaches and frameworks. The subject will also equips students with the knowledge and skills to develop system integration solutions from various perspectives including social, corporate and technical perspectives. The student will analyse requirements for systems integration,

evaluate different options by identifying sources of data, mapping information, and select and apply appropriate technologies.

System Integration

This subject explores enterprise architecture concepts, case studies and framework. This will equip students with the knowledge and skills to translate enterprise information systems strategy into infrastructure that supports the flow and processing of information in an organisation. Under an enterprise architecture, students will focus on integrating individual disparate information system into a seamless enterprise information system. The students will learn to develop system integration solutions by addressing issues from social, corporate, and technical perspectives.

Organizational Issues & Information Technology

This subject aims to provide the student with an understanding of issues related to the combination of management, workers and information technology. Students will gain an appreciation of the complexity of the issues involved in decision making when people and technology are concerned. Students will also develop an understanding across commerce and industry of the parallels that exist in the development, implementation and application of information and communication technology. Effect on organisational information flows of growth in size and complexity: the management and technological response; Information technology as a catalyst in codifying work procedures and creating new organisational structures; Hierarchical versus horizontal approaches to information management; Management theory and IT; Industrial use of IT and parallels with office sector usage. Implications of broadband networks for traffic integration and subsequent application in commerce and industry.

Business Intelligence and Knowledge Management

This subject focuses on strategies that promote knowledge creation and use within organisations. In total the subject enables students to gain familiarity of both quantitative and qualitative approaches to knowledge management and to develop competence in an area that is of interest to them. Student will be exposed to Business Intelligences (BI) as a contemporary strand of knowledge management practice. In addition they will be exposed to common BI methods and tools developing competence in one or more techniques. The subject also familiarises students with the literature in knowledge management to assist in critical assessment of methods and tools.

Strategic Network Management

The subject investigates the documentation and management of strategic networks. Topics to be covered include: 1. Network Requirements: a strategic network management perspective of informational, dimensional, functional, specification, configuration, integration, and service level requirements. 2. Managing the Network: influences on the network, management architectures and standards, performance management, fault management, disaster management, managing changes in a network, cost minimisation management 3.

Corporate and Regulatory Requirements: management teams, operations and support, standards and protocols.

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.

Marketing for Strategic Decisions

The subject examines how professionals strategically manage their market offerings to create , deliver and capture value to customers and other stakeholders, and how marketing with a social conscience is crucial to long-term business performance, customer satisfaction and other customer and societal outcomes. Effective marketing management results from systematic critical thinking and the reasoned application of underlying principles in a dynamic marketplace. This subject aims to develop students knowledge and skills in the application of concepts, tools and frameworks for marketing decision-making in a dynamic competitive environment. The subject covers significant areas within marketing, such as marketing planning, research, buyer behaviour, customer and competitive analysis, market segmentation, targeting and positioning, product planning, pricing, distribution and communication, and responsible marketing, with a focus on managing those elements within an integrated marketing program.

Economics for Modern Business

The subject examines core economic concepts relevant to business and managerial analysis and decision making. These concepts are used both to provide an economic basis for consumer and business decision making, as well as to equip students with the skills to identify and analyse aspects of the contemporary economic environment relevant to the operations of business. It commences with a microeconomic examination of the behaviour of individual economic units and understanding of the operation of markets. We then explore macroeconomics and its application to the functioning of the economy overall. Here, we explore the interrelations amongst participants and markets in a modern open macroeconomy and emphasise relevant topics such as the labour market and unemployment, inflation and interest rates, trade and exchange rates, and government policy intervention.

Operations Management

This subject is a study of the design, analysis, decision-making and operations of activities for the production and delivery of goods and services. Topics include: strategic issues, qualitative and quantitative forecasting, facility location, capacity and layout, production planning, scheduling, management of quality, supply chain management and e-business, just-in-time and lean manufacturing, and project management. Whilst some calculations will be

part of this subject, the emphasis will be more on the managerial interpretation of the methods and results.

Strategic Procurement Management

Procurement is increasingly being recognised as a fundamental enabler of business strategy and a preferred method for achieving sustainable cost reduction. Controlling approximately 70-80% of all company expenditure, Procurement functions are in a critical position to influence commercial and financial success. This subject looks at the expanded responsibility of procurement and its integration with long-term strategic corporate planning. Topics include the procurement of goods and services, strategic sourcing, supplier relationship management, inventory management, total cost of ownership, negotiation planning, outsourcing and globalisation, supplier selection and evaluation, risk mitigation, and e-procurement. Emerging procurement issues such as supplier innovation, sustainable procurement and ethical supply chains are examined.

Total Quality Management

The subject addresses quality management from a systems perspective. Students will discover the philosophy of modern quality management systems deployed and embraced by companies and their wider supply chain. Additionally, students get to explore tools and techniques such as root cause analysis, process mapping and statistical process control to drive quality management into businesses. The course is structured around the ISO9000 Quality Management framework in order to assist student to apply quality management principles in their future careers.