**UNIVERSITY COLLEGE OF TECHNOLOGY SARAWAK**
**Bachelor of Technology Management; N/345/6/1085; MQA/PA 10874**

## PROGRAMME SYNOPSIS

### Year 1 Semester 1

Course: MTM3113 Principles of Management

Synopsis:
The module is designed to help students to understand the fundamental management definition, process and its application, necessary for success in business world. It covers the management functions such as making a decision, controlling, planning, organizing and motivating. The module also highlight theory and practise of managing an organization to meet the needs of modern public and private organization, including emerging trends and international issues.

Course: MTM3103 Financial Accounting

Synopsis:
The module encompasses techniques for preparation of financial statements and understanding of the principles on which accounting is based.

Course: MTM3143 Organizational Behaviour

Synopsis:
The course is designed to help student understand the importance of human behaviour and its relationship to organizational goals. It focuses on the individual personality, group and the organization culture. The course also helps students discover various human behaviour issues and organization roles in the workplace. Throughout semester, students will be exposed to various concepts and theories of organizational Behaviour.

Course: MTM3123 Technology Management

Synopsis:

This subject is intended to give an understanding on the concept of technology management and its application to organization particularly business firm. The topics to be covered are: Introduction to management of technology, the role of technology in the creation of wealth, critical factors in managing technology, technology life cycles, the process of technological innovation, competitiveness, business strategy and technology strategy, technology planning and technology transfer.

Course: MTM3213 Workshop Technology

Synopsis:

This subject provides students to the principle to the principle of ergonomic design of job and products in an industrial and product consumer. Principle of good design is thoroughly investigated and examples of poor designs are given. Consequences of poor job and product design are also emphasized. This topic will be covered in this subject such as the introduction to ergonomics, elements of anthropometry, physiology, anatomy, biomechanics and CTDs; workplace, seating hand tools design, manual material handling; man-machine system interface, human information processing, displays and controls, compatibility, environment factors; cognitive ergonomics, principles of graphic user interface design; human error, product safety, and product liability.

This course is also designed to teach the fundamentals of Work Study and Ergonomics, which are both used in the examination of human and work in all their contexts. The topics covered in the course are introduction, problem solving tools, manual work design {principles of motion economy, motion study}, design {workplace, equipment, and tool}, work environment design.

Course: ETE3414 Digital Electronic

Synopsis:
The module encompasses fundamental theory of digital electronics systems, number systems, combinational circuit, flip flops and counter design.

## Year 1 Semester 2

Course: MTM3163 Human Resources Management

Synopsis:
This course provides foundation and conceptual framework of Human Resource Management. Students will be exposed to various concepts, frameworks and theories of Human Resource Management. Throughout semester, students will have opportunity to understand a comprehensive guidelines, procedures and policies for human resource applications in the modern organization.

Course: MTM3183 Supply Chain Management

Synopsis:
This course is designed to give students the breadth and depth of logistics and supply chain management. Topics to be covered include: overview of supply chains, logistics, customer accommodation, procurement and manufacturing, information technology framework, inventory, transportation, warehousing, packaging and materials handling, operational integration, global strategic positioning, network integration, relationship development and management, as well as E-Commerce and SCM.

Course: MTM3223 Data Mining

Synopsis:
This course provides the students with knowledge of algorithms and computational paradigms that allow the computer to find patterns and regularities in databases or large datasets by using selection, cleaning, coding, pattern recognition, machine learning and other statistical methods, so that the computer can be used to perform forecasting and improve the performance of interactions.

Course: MTM3613 Business Mathematics

Synopsis:
This course provides foundation and conceptual framework of business mathematics. Students will have opportunity to discuss various topics; including the fundamental mathematics, calculus, mathematics finance and investments, mathematics used in the worlds of goods and services and mathematics used in banking.

Course: EEM3473 Computer Aided Design

Synopsis:
The subject is designed to provide the skills and knowledge necessary to integrate CAD/CAM technology. Student will be taught basic engineering drawing using CAD software. This will include from basic to intermediate level of CAD. Student should be able to draw 2D as well as 3D drawing based on engineering drawing standard upon complete this course.

Course: MPU3412 Co-curriculum

## Year 1 Semester 3

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| Course: | MPU3123 | TITAS |
| Course: | UCS3312 | Green Technology |
| Course: | UCS3122 | Professional English |
| Course: | UCS3212 | Creativity and Innovation |
| Course: | UCS3412 | Bahasa Kebangsaan (Audit Course) |

## Year 2 Semester 1

Course: MPU3113 Hubungan Etnik

Course: MTM3173 Project Management

Synopsis:
This course is designed to give students the breadth and depth of project management. Topics to be covered include: project organization – strategy, structure and culture, project leadership; scope management; project team building, conflict and negotiation; risk management; cost estimation and budgeting; project scheduling; resource management; project close-out and termination.

Course: MTM3943 Leadership

Synopsis:
This course is designed to give students insights into leadership concepts, theories and practices. Topics to be covered include: leadership managerial roles; leadership traits and ethics; leadership behaviour and motivation; power, politics, networking and negotiation; contingency leadership theories; communication, coaching and conflict skills; leadership/follower relations; team leadership and self-managed teams; charismatic and transformational leadership; leadership of culture and diversity and learning organization; and strategic leadership and managing crises and change.

Course: MTM3143 Risk Management

Synopsis:
This course aims to introduce students to the risk management concept and techniques in a company or business. Students will be exposed to concepts and tools to assess, rank-order and manage high-risk projects and tasks, proven methods of integrating risk management into business and project planning. As a manager, they are required to possess a wide range of knowledge and skills, including time management, budget analysis, interpersonal and communication skills as well as risk management competencies. In this course, students will be exposed to the Project Life Cycle in assessing risk management process. The discussion will cover input and output from risk identification, quantification, response development as well as risk control.

Course: MTM3423 Technology Assessment (prerequisite MTM3123 Technology Management)

Synopsis:
This subject is intended to provide students with the craft of technology assessment, that is, to understand the importance of technology assessment in corporate strategic planning, to understand the critical elements of technology assessment; and to learn and apply tools and techniques related to technology scanning, technology impacts, strategic technology analysis, technology road mapping, technology forecasting, and measuring technology performance.

Course: MTM3313 Production Planning and Control

Synopsis:
Production planning may be defined as the technique of foreseeing every step in a long series of separate operations, each step to be taken at the right time and in the right place and each operation to be performed in maximum efficiency. Production control on the other hand is the process of planning production in advance of operations, establishing the extract route of each

individual item part or assembly, setting, starting and finishing for each important item, assembly or the finishing production and releasing the necessary orders as well as initiating the necessary follow-up to have the smooth function of the enterprise. Aims to give the students an understanding of the ways in which manufacturing companies are organized, and the nature and diversity of engineering products. The organisation of production and the planning and control of production.

## Year 2 Semester 2

Course: MTM3153 Lean Enterprise

Synopsis:
This course provides an overview of lean manufacturing practices within a company and its supply chain. It addresses fundamental practices including flowcharting of business processes, collection and analysis of process performance data and the removal of those activities that are determined to be wasteful or non-essential.

Course: MTM3463 International Business

Synopsis:
The module is designed to give students insights on the global changes and its impact on the business organization. It also helps to develop student awareness of the impact of the global changes to the overall business activities across the border and countries.

Course: MTM3273 Procurement in Industrial Management

Synopsis:
It is important for students to recognise the vital role that services play in the economy and its future. The advanced economies of the world are now dominated by services, and virtually all companies view service as critical to retaining their customers today and in the future. This course focuses on knowledge needed to implement service strategies for competitive advantage across industries.

Course: CSS3313 Multimedia Technology

Synopsis:
This course provides the theoretical knowledge and practical techniques related to developing interactive multimedia application and how multimedia works especially world wide web as a multimedia technology.

Course: MTM3293 Final Year Project 1

Synopsis:
This course will expose the students on the process of conducting research in order to provide the skills and ability in carrying out research project in the business field. The covered areas for Final Year Project I are: (i) Chapter 1 consisting of research background, problem statement, research questions and objectives, research model, scope, and operational definition; (ii) Chapter 2 consisting of literature reviews, (iii) Chapter 3 consisting of research methods.

## Year 2 Semester 3

Course: MTM3173 Quality Management

Synopsis:
This course is designed to help students the grasp knowledge and understanding on quality management systems and its application in business organizations. It covers topics such as: background and history of quality management systems; cost of poor quality; designing for quality; organizing for quality culture; continuous improvement; introduction to six sigma; quality certification and award systems; quality audits; data collection, analysis and interpretation in quality management; decision making based on statistical assessments; application and process control charts in quality management; inspection and testing in quality management; and quality information systems.

Course: MPU3312 Entrepreneurship Skills
Course: MPU3212 Malaysian Economy
Course: UCS3112 Communication in Workplace

## Year 3 Semester 1

Course: MTM3413 Vocational Training Operation

Synopsis:
This course introduces the knowledge and skills required to design, deliver, assess and evaluate training programmes. Presents the theory of training and adult learning by introducing different styles and the varying approaches of key theorists to the psychology of learning. Presents good training practice while advocating equality and diversity in the training environment. Describes how to identify training needs, devise learning objectives and prepare curriculum and plan appropriate training curriculum and methods to achieve those objectives. Explain how to plan, prepare and deliver a dynamic and thought-provoking presentation using a variety of resources.

Course: MTM3484 Training Design, Delivery and Evaluation

Synopsis:
Assessing Present Training Function, Planning and Procedures for Needs Identification, Implementing Specific Methods to Gather Information, Concluding a Needs Analysis. Additionally the topics to be covered in the Training Delivery and Evaluation include Building a Foundation for Excellence, Mastering the tools of Instructor Excellence: Sixty Standards of Performance, Managing Instructor Excellence, Evaluating Training Program: Concept, Principles, Guidelines and Techniques, Evaluating a Training Program and Evaluating a Leadership Development Program and Building a Partnership with the Managers and Supervisors of Learners

Course: MTM3133 Strategic Management

Synopsis:
This course provides foundation and conceptual framework of Strategic Management. Students will be exposed to various concepts, frameworks and theories of Strategic Management. Throughout semester, students will have opportunity to discuss various topics: strategy formulation, strategy implementation and strategy evaluation. In addition to that, students will also been given an opportunity to explore various methods and analysis tools use to analyse the strategic position of the organisation.

Course: EEM3243 Manufacturing Technology

Synopsis:
The aim of this course is to introduce the concepts and appreciate the nature of manufacturing technology. It is important that the students will comprehend the requirements and activities in manufacturing a products.

Course: MTM3323 Final Year Project 2

Synopsis:
This course will expose the students on the process of conducting research in order to provide the skills and ability in carrying out research project in the business field. The covered areas for Final Year Project I are: (i) Chapter 1 consisting of research background, problem statement, research questions and objectives, research model, scope, and operational definition; (ii) Chapter 2 consisting of literature reviews, (iii) Chapter 3 consisting of research methods; (iv) Chapter 4 - data analysis, and (v) Chapter 5 – discussion and conclusions.

## Year 3 Semester 2

Course: MTM3912 Industrial Training

Synopsis:

The purpose of this course is to provide exposure to the students regarding the actual working environment by work placement in organizations outside the university. In addition, the course enables the students to apply concepts and theories acquired during lectures to the actual practices in areas related to business. During the placement, student is expected to keep a log book, in which he/she makes a regular entries describing the work he/she is undertaking. The student needs to provide industrial training report to describe his/her technical and personal development during his/her placement.

## Electives

Course: MTM3223 Marketing Management

Synopsis:
This module is designed to provide an overall view about the products strategic marketing management and analysis towards the customers specifically. It focuses on the dynamic aspects of market strategy development, namely markets and competitive space, marketing segmentation, CRM, market targeting and positioning, innovation and new product strategy, brand management, pricing strategy, promotion, advertising, and sales promotion strategies, sales force, Internet, and direct marketing strategies. It is to provide students with comprehensive marketing knowledge encompassing the development of marketing strategies, marketing planning procedures, evaluation, and control in the particular marketing planning. As such, students able to know how to develop and adjust strategies in an integrative manner through the case study and also in preparing a market research report. This module also identifies how the market meet the demand of its products or services in the competitive space, which is including marketing research and how demand for products resulted for research.

Course: MTM3443 Industrial Automation

Synopsis:
A study of the applications of industrial automation systems, including identification of system requirements, equipment integration, motors, controllers, and sensors. Coverage of set-up, maintenance, and testing of the automated system.

Course: MTM3313 Principle of Finance

Synopsis:
This course covers a range of areas related to cash receipt, cash balances, working capital management, credit granting, debt collection, sources of finance, short-term decisions and capital investments.