PROGRAMME SYNOPSIS

Year 1 Semester 1

Course: BID3113 Design Context

Synopsis:
This module encompasses the study of major arts and design movements from the ancient civilisations to the post-modern design of the 20th century, and the significance of the movements towards the bearing of designs.

Course: BID3123 Product Styling and Creativity

Synopsis:
This module prepare students to practical methods for the systematic development of new products, describing the underlying principles of product styling and creativity that focus on adding value to product without changing its technical performance. The processes are explored further and translated into workable procedures by providing a framework for both thinking about styling and creativity in developing and organising design activities.

Course: BID3133 Industrial Design Studies

Synopsis:
This module covers the basic understanding of product semantics and introduce students to branding within the context of industrial design. Students will look at form, colour and texture and how to analyse present visual research information. Student will be taught to generate design concepts from a range of data and semantic concepts. Advance industrial design technologies including social trends, PEST analysis, and user and brand research will also be introduced.

Course: BID3143 Understanding User

Synopsis:
This module covers the foundation in human anatomy, physiology, biomechanics and anthropometry relevant to ergonomics and human facts in design. It gives students overview of human cognition, perception, human error and decision making from the perspective of human factors and ergonomics in design. Students will learn the theory alongside how this translates into real life situations through the use of case studies.

Course: BID3154 Design Practice 1

Synopsis:
This module focuses on teaching students good working practices in design, bringing together everything students have learned from other modules in year 1 and putting them into context. The module is based on studio and workshops where students will be designing and building individual projects.

Course: UCS 3122 Professional English: Essential Communication Skills

Synopsis:
This course provides a comprehensive reference guide on technical communication principles, skills and practice in workplace. It explains the principles of effective communication, both written and oral, and provides solid advice and practical guidelines on how to strengthen communication skills and produce good technical writing. It introduces the theory, specimen documents, suggested layouts and explanations that develop skills and understanding.

Year 1 Semester 2

Course: BID3213 Graphic Media and Communication

Synopsis:
The module encompasses the fundamental theory and principles of Graphic Design, imaging, colour, typeface, packaging, and printing.

Course: BID3223 Ergonomics for Design

Synopsis:
This module contributes to the analysis of human-product system interactions from the perspective of ergonomics, regardless of how simple or complex they are, while incorporating the needs of users in a healthy, safe, efficient and enjoyable manner. This module also provides a comprehensive review of the state of the art of current ergonomics in design methods and techniques that are being applied the design of products, machinery, equipment, workstations and systems while taking the new technologies and their applications into consideration.

Course: BID3233 Colour Theory

Synopsis:
This module encompasses fundamental theory and application of colour and its effects within the context of art and design. This module also emphasizes on the physical demonstration of the underlying principles of colour basics, to analyse and comprehend students' perception of the effects.

Course: BID3243 Computing for Designer

Synopsis:
This module introduces the latest design programs and software to be used in most design tasks which encompass 2D graphics, illustration, image editing, interactive design and multimedia to 3D visualising, modelling, detail engineering drawing, simulation and analysis. Extensive tutorials will be conducted to optimise students' ability to use these programs in all their design tasks.

Course: BID3253 Material and Process

Synopsis:
This module introduces the spectrum of activities that are normally involve in material and process selection for different range of product design and development phases. These activities encompass identification of needs, performing a feasibility study, and selecting an optimum concept. The module highlights the material and process selection for the main stages of designing and manufacturing products, and the activities involved in testing, refining, and marketing. Environmental issues and product life-cycle are also emphasised.

Course: BID3254 Design Practice 2

Synopsis:
This module emphasis students build on the skills and experience from the module Design Practice I. Students will be working both on individual projects and in teams to develop an imaginative and creative solution to the briefs set. Students will also learn about the role of design in enterprise and learn how to workshop machinery and tools safely.

Year 2 Semester 1

Course: BID3313 Universal Design

Synopsis:
This module is arranged in three main sections which include: Establishing a foundation and rationale for universal design paradigm, Summaries of underlying knowledge bases for universal design practice, and Summaries of practices of universal design across a broad range of fields.

Course: BID3323 Service Design

Synopsis:
The module encompasses fundamental theory and design stages of Service Design, which include the principles, processes, tools, and implementation.

Course: BID3333 Design for Modularity

Synopsis:
This module presents a design perspective on the changes that have occurred in product and manufacturing, and how the concept of product modularity has played a significant role in revolutionising mass production to mass customisation. This module will defines comprehensively modular systems characteristics and development, methodology, application, management and cost effective analysis, and product life-cycle.

Course: BID3343 Sustainable Design

Synopsis:
This module focuses three main area of knowledge which include the foundation and rationale for sustainable design paradigm, the theory of underlying knowledge bases for sustainable design practice; Summaries of practices of sustainable design across a broad range of fields through case studies.

Course: BID3355 Design Practice 3

Synopsis:
This module aims to teach students build on the skills and experience from the module Design Practice II. Students will be working both on individual projects and in teams to develop a creative and innovative solutions to the briefs set. Students will incorporate engineering design solution in product development within the design project.

Course: MPU 3312 Entrepreneurship Skills

Synopsis:
This course also provides an understanding of an individual as entrepreneur and the process of creating and growing a new venture. The topics include theory of entrepreneurship, types of entrepreneurship, the importance of entrepreneurship and factors affecting entrepreneurship, entrepreneurship develop in Malaysia, entrepreneurial creativity and innovation, opportunity identification, business plan, business support system and form of business entities and relate legal requirements.

Year 2 Semester 2

Course: BID3413 Product Costing

Synopsis:
This module introduces students to the basic concept in product costing, accounting and financial management of a particular product design project. Emphasis will be on the general theories and practices in accounting as well as analysis and interpretation of the financial statements and planning throughout the process of a design project.

Course: BID3423 User Experienced Design

Synopsis:
This module covers the foundation of UXD or UED by introducing the methods and background of interactive experience in particularly with digital products. This module also encompasses the techniques, experience design, design processes and methods of UXD, and product/service prototyping in the contexts of real situation.

Course: BID3433 Research Methodology

Synopsis:
In the beginning of the course, students are required to attend a research workshop where they will be taught on how to start a research, conduct literature review, decide appropriate methodology, collect, interpret and analyse data. Later, students will be guided by the respective supervisors on how to plan for research which will be conducted later in *Design Research Project I* module. Students will carry out discussions supervisor on the research topic, objective, scope, research programme, before proceeding to develop a research proposal. A report and a presentation of the research proposal are required at the end of the course.

Course: BID3443 Design for Additive Process

Synopsis:
This course provides training to students to produce technical detailing drawings using CAD CAM software and converting to standard file for additive manufacturing (AM) applications. The applications, tools, commands and functions in the AM software are introduced. Demonstrations are given to show the approaches that different CAD CAM tasks are carried out, and exercises are provided to allow students to practice the usage of the software and AM machine.

Course: BID3455 Design Practice 4

Synopsis:
This module teaches students build on the skills and experience from the module Design Practice III. Students will be working either on individual projects or in teams to develop a creative and innovative solutions to the briefs set. Students will also learn about the role of design in enterprise and incorporate analysis of actual costing of product development within the design project.

Course: UCS 3212 Creativity and Innovation

Synopsis:
This subject explores the creativity and innovation of thinking skills with an exposure of principles of thinking, methods of generating ideas, creativity in problem solving techniques, creativity in writing as well as giving the experience of producing creative and innovative product through project given.

Year 2 Semester 3

Course: UCS 3112 Communication in the Workplace

Synopsis:
This course comprises of basic knowledge and skills in workplace communication, providing a fundamental exposure and guide to the various forms of communication in the workplace covering both verbal communications and written communication. These include practice in conveying ideas and opinions, writing proposals and business letters, preparing reports, oral communication and presentation.

Course: UCS 3412 Bahasa Kebangsaan

Synopsis:
Kursus ini membolehkan pelajar mempertingkatkan kecekapan berbahasa sesuai dengan intelek pelajar untuk berkomunikasi secara lisan dan tulisan dalam konteks rasmi, kreatif dan bukan kreatif. Mata pelajaran ini disediakan untuk mempertingkat kecekapan berbahasa sesuai dengan intelek pelajar untuk berkomunikasi dengan lisan dan tulisan dalam konteks rasmi, kreatif dan bukan kreatif.

Course: MPU 3113 Hubungan Etnik

Synopsis:
This course focuses on concepts of culture and ethnic relations, specially emphasises on the latest development in Malaysia. It includes the concepts of ethnic relations, insights of ethnic relations in Malaysia in the aspects of economics, politics, constitutions and religions in Malaysia. It also discuss about the challenges for the enhancement of the ethnic relation and the roles of the government and the society.

Course: MPU 3212 Malaysian Economy

Synopsis:
This course provides the student with an overview of the Malaysian economy, the role of the government and its economic interaction with other countries. Various topics will be discussed, including: the government economic policies and activities (primary, secondary and tertiary), Collin Clark's hypothesis of economic development, key growth engines of Malaysian economy towards high income economy (Iskandar, NCER, ECER, SCORE, and SDC), and Economic Transformation Programme (ETP).

Year 3 Semester 1

Course: BID3513 Strategic Management of Innovation and Design

Synopsis:
This course encompass the fundamental concepts of contemporary innovation seen by the different disciplines. These concepts include management sciences and innovation capability that transform innovation to innovative design. Design capabilities in innovative firms will be explained, and discussion and proposition on rebuilding innovation capabilities will be prepared through appropriate tools and platforms.

Course: BID3513 Design Research Project 1

Synopsis:
This course requires students to attend a research workshop where they will be taught on how to implement an academic design research, conduct literature review, decide appropriate methodology, collect, interpret and analyse data. Students will be guided by the respective supervisors on how to produce a research proposal, and plan for research proposed earlier in *Research Methodology* module. A report and a presentation of the research proposal are required midway through the course before proceeding to the design project presentation (Part 1) at the end of the course.

Course: MPU 3412 Co-curriculum

Synopsis:
Students will take part in organizing university's and outside events to gain opportunity of training and learning of specific techniques and skills related to the themes of the events apart from participating in soft skills improvement programs while joining other outdoor sports activities. These will allow students to practice effective communication skills, both verbally or written, polish managerial skills while becoming leaders and managing events in the university, and cultivate awareness of lifelong learning while exposing to well-diversify of knowledge, skills and techniques.

Year 3 Semester 2

Course: BID3616 Design Research Project 2

Synopsis:
This course requires students to continue the design research project with significant improvements to the results achieved in DRP1. Further development of design, engineering and production requirements are emphasised. Final product prototype is evaluated to prepare for final presentation. A final report and a presentation of the research is conducted at the end of the course. A complete dissertation of the project is submitted concurrently with the final presentation.

Course: MPU 3123 Tamadun Islam & Tamadun Asia (TITAS)
Synopsis:
This course focuses on concepts of culture and ethnic relations, specially emphasises on the latest development in Malaysia. It includes the concepts of ethnic relations, insights of ethnic relations in Malaysia in the aspects of economics, politics, constitutions and religions in Malaysia. It also discuss about the challenges for the enhancement of the ethnic relation and the roles of the government and the society.

Course: UCS 3312 Green Technology
Synopsis:
This subject explores the green technology with basic knowledge and fundamental green principles in recycling, green home living, green daily life, green buildings, alternative energy, green transportation, green business and green economics.

Year 3 Semester 3

Course: BID3716 Industrial Training

Synopsis:
This course requires students to attend 6 months on job training at (any of the following) manufacturing firms, consulting firms, development firms, government department and statutory bodies related to industrial design practices. Nature of works encompasses any design related tasks, studio and site supervisions, measurements, contract administrative works etc. Work experience is recorded in work diary, training report and presentation upon completion to evaluate their competency in the field.

Elective Subjects

Course: BID3813 Engineering Fundamental

Synopsis:
The course encompasses fundamental theory and technique of engineering design, and the principle of various engineering design and their applications.

Course: BID3823 Electrical and Electronic Fundamental

Synopsis:
The course encompasses analogue electronics and fundamental theory of semiconductors, diodes, transistors and operational amplifiers with their applications. Student will be taught to create simple electrical or electronic circuit project.

Course: EEM3473 Computer Aided Design

Synopsis:
This course provides knowledge on design employing software. Students will construct design solutions using appropriate software.

Course: EEM3523 Industrial Health and Safety
Synopsis:
This course covers the introduction to industrial safety and health, hazards and their control, chemical safety, mechanical safety, electrical safety and industrial safety and health regulations.