UTHM
Universiti Tun Hussein Onn Malaysia

ACADEMIC PROFORMA

2021/2022

CENTRE FOR DIPLOMA STUDIES
CEDS

DIPLOMA IN INFORMATION TECHNOLOGY

QS STARS™ RATING SYSTEM

Universiti Tun Hussein Onn Malaysia
Is Rated as a Five-Star Institution

QS STARS™ RATING SYSTEM Teaching
QS STARS™ RATING SYSTEM Employability
QS STARS™ RATING SYSTEM Innovation
QS STARS™ RATING SYSTEM Online Learning
QS STARS™ RATING SYSTEM Inclusiveness

UTHM Produces Professionals

PUSAT PENGAJIAN DIPLOMA
UTHM KAMPUS PAGOH, HAB PENDIDIKAN TINGGI PAGOH
KM 1, Jalan Panchor, 84600, Panchor, Johor.

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Universiti Tun Hussein Onn Malaysia
September 2021

Contents

Foreword from Vice Chancellor	3
Foreword from Deputy Vice Chancellor (Academic and International)	4
Foreword from Dean	5
Vision of University	6
Mission of University	6
Education Philosophy of University	6
Logo of University	6
Board of Directors of University	9
Members of Senate	10
Centre for Diploma Studies	13
Vision of Centre for Diploma Studies	13
Mission of Centre for Diploma Studies	13
Programme External Examiner	15
Programme Industrial Advisor	15
Centre Staff Directory	16
Aims of Programme	19
Programme Educational Objectives (PEO)	19
Programme Learning Outcomes (PLO)	19
Curriculum Structure	20
Synopsis of University Courses	22
Synopsis of Centre Courses	26
Synopsis of Programme Courses	27
Career and Further Education Prospect	36
Further Education Pathway	37

Foreword from Vice Chancellor

Assalammualaikum Warahmatullahi Wabarakatuh and greetings.

I would like to congratulate and welcome all students who will embark on the next important chapter of your life here at UTHM. We appreciate your trust for choosing to be with UTHM in continuing your endeavour for success in your life.

The Coronavirus Disease 2019 (Covid-19) has continued to deny new and current students the opportunity to experience higher education environment one would dream. The innovation of vaccines has given us the ray of hope that would eventually allow us to do what we do best, i.e. educating the young and bright Malaysians like you.

I would like to highlight that UTHM has set four main pillars in order become a global technopreneur university. They are Edu-Train, Technopreneur, UTHM Prihatin and Governance. At the heart of these pillars are the students and staffs who will be the driving force for success. As a new student to this university, it is my hope that you will participate and contribute to the mission of the university.

Nevertheless, UTHM will continue to strive in providing the best learning experience available. Academic programmes are continuously reviewed to ensure that the most recent educational initiatives are implemented. This is in line with the aspirations of the Ministry of Higher Education Malaysia in transforming learning and teaching process to be more flexible, organic, dynamic and effective. Additionally, initiatives such as High Impact Educational Practices (HIEPs), Future Ready Curriculum (FRC), Entrepreneurship Integrated Education (EIE) will take centre stage and shape the academic curriculum, which will increase the Graduate Employability (GE). These initiatives, coupled with dedicated academics and world class facilities will produce holistic graduates and later professionals, as promised in our tagline, 'UTHM Produces Professional".

On a final note, I would like to again welcome all students to our big family. I believe that you will become successful university graduates and will continue the university tradition of academic excellence. I am also confident that you will be able to apply knowledge and skills gained for the benefit of the society.

Best wishes.

Y. BHG. PROFESSOR DATUK TS. DR. WAHID BIN RAZZALY
Vice Chancellor
Universiti Tun Hussein Onn Malaysia

Foreword from Deputy Vice Chancellor (Academic and International)

Assalammualaikum Warahmatullahi Wabarakatuh and greetings.

I would like to take this opportunity to congratulate and welcome all new students of the academic session 2021/2022 to Universiti Tun Hussein Onn Malaysia (UTHM). Similarly, my congratulations to the Centre for Academic Development and Training for successfully publishing this proforma in which can become a guide for the students to plan their learning journey at the university.

As everyone is aware, the Covid-19 pandemic has continued to change Malaysia's higher education landscape. All universities must adjust to the new norm which affects the learning and teaching process. Students and lecturers are left with no other options than to continue with online classes. Thus, UTHM will continue to ensure quality education through innovative delivery and world class facilities so that no student will be left behind.

Apart from the above, the higher education in Malaysia has evolved from teacher-centred to student-cantered learning. In addition, many initiatives have been rolled out towards the development of holistic and balanced graduates in terms of ethic, moral, knowledge, and skills. In order to improve the quality of learning and teaching, Industry Revolution 4.0 and work-based learning elements are embedded into the curriculum to ensure that academic programmes offered by UTHM continue to be relevant to the needs of current industry and market. Apart from that, knowledge and experience sharing between the key players of local and foreign industries in relation to industries and students as well as local community are delivered through CEO@Faculty programs.

UTHM with much effort and dedication will strive to become the champion of TVET. The existing academic programmes are aligned towards producing excellent TVET graduates. New programmes are developed to cater for new areas in TVET, which are seen to be the dominant workforce in Malaysia. It is hoped that all these efforts will further accelerate UTHM in becoming a global technopreneur university.

I do hope that all the initiatives which have been and will be rolled out by UTHM will give you valuable experiences in exploring knowledge and skills at UTHM. I would like to call out on you to take the opportunity to explore your own potential through various co-curricular activities and programmes prepared by UTHM. To achieve these aspirations, early preparations guided by this proforma will help you plan for your journey throughout your studies at UTHM. I hope you will be able to achieve excellent academic results and outstanding success.

Finally, I wish you all the best and pray that you will be successful in your studies at the university and be able to contribute to the development of the religion, race and nation.

"WITH WISDOM WE EXPLORE"

PROFESSOR DR. AZME BIN KHAMIS
Deputy Vice Chancellor (Academic and International)
Universiti Tun Hussein Onn Malaysia

Foreword from the Dean of Centre for Diploma Studies

Assalamualaikum Warahmatullahi Wabarakatuh and greetings.

I congratulate and well done to you who have successfully stepped foot into university by making the right choice to Universiti Tun Hussein Onn Malaysia (UTHM) which is the 15th IPTA established in Malaysia. I would like to once again welcome you all to Centre for Diploma Studies (CeDS) which is ready to guide and train you to become a semi-professional, especially in the field of engineering, science and technology.

As a centre that specifically handles and implements Diploma programs at UTHM, CeDS has a clear vision and mission in developing and empowering all Diploma programs offered. To date, seven (7) Diploma programs are being offered and the number will increase in the future in line with the country's employment needs. I am sure you have chosen a program that suits your qualifications and ambitions in the future. Furthermore, the study period for all programs is only 2 years and 9 months, allowing students to complete their studies in a short period of time. In the meantime, Diploma graduates will be absorbed to continue to follow the Bachelor Degree programs at UTHM subject to the conditions that have been set.

Teaching and learning infrastructure and facilities provided at UTHM meet the standards that have been set and recognized by the recognition body both locally and abroad. In addition, the rapid development of the UTHM campus will now ensure the comfort of students with various facilities provided including libraries, residential colleges, cafeterias, sports activities, wireless internet connection and various other related facilities.

I hope you as a new student of the UTHM Diploma program will use this proforma as a guide and reference to facilitate you to plan and subsequently complete your diploma study program with excellence.

Good luck.

PROFESOR MADYA DR. MOHAMAD ZAKY BIN NOH
Dean
Centre for Diploma Studies
Universiti Tun Hussein Onn Malaysia

Vision

Towards a world class university in engineering, science and technology for sustainable development.

Mission

UTHM is committed to generate and disseminate knowledge, to meet the needs of industry and community and nurturing creative and innovative human capital, based on the tauhidic paradigm.

Education Philosophy of University

The education and training practice in this university is a continuous effort to become the leader in market oriented academic programmes. These programmes are student-focused and are conducted through experiential learning in order to produce well trained human resource and professionals who are catalysts for sustainable development.

Logo of University

The logo of UTHM displays a proton, a book, a tiered mortar board (levels of learning), a book-rest and a shield.

Symbolism:

- Red — Bravery
- Blue — Collaboration
- Silver — Quality/ Prestige
- Book-rest — Knowledge
- Proton — Science and Technology
- Book — Knowledge
- Mortar board — Levels of study
- Circle — Resilient and related to global characteristics
- Shield — Confidence

The whole concept of the logo represents UTHM as a learning institution that supports knowledge expansion and development at all levels of study in science and technology.

Blue represents the close relationship among UTHM community in ensuring successful and resilient implementations of the University programmes as well as its education and research activities that are carried out for the benefit of mankind.

Red symbolises the adventurous nature of UTHM in exploring new fields to establish itself as a leader in the applications of science and technology. Thus, this reflects the spirit and self-esteem of the UTHM community.

Chancellor

Duli Yang Maha Mulia Sultan Ibrahim Ibni Almarhum Sultan Iskandar
Sultan Yang Dipertuan Bagi Negeri Dan Jajahan Takluk Johor Darul Ta'zim
D.K., D.K.(Pahang), SPMJ, SSIJ,S.M.N.,S.P.M.T., S.M.P.K., P.I.S.

Pro Chancellor I

Duli Yang Amat Mulia Tunku Ismail Ibni Sultan Ibrahim
Tunku Mahkota of Johor (TMJ)
D.K., SPMJ, P.I.S

Pro Chancellor II

YBhg. Tan Sri Dr. Ali Hamsa

Board of Directors of University

Chairman

YBhg. Dato' Sri Ibrahim bin Ahmad

Members

YBhg. Prof. Datuk Ts. Dr. Wahid bin Razzaly
Vice Chancellor, Universiti Tun Hussein Onn Malaysia

YB. Dato' Haji Nooh bin Gadot
Advisor, Majlis Agama Islam Johor

YBhg. Datuk Ts. Pang Chau Leong
Member, Board of Directors

YBhg. Dato' Dr. Mohd. Padzil bin Hashim
Putra Business School, Universiti Putra Malaysia

YBhg. Dato' Ir. Dr. Haji Abdul Rashid bin Maidin
Managing Director, Pusat Bertauliah Akademik Profesional Koperasi Serbaguna Anak-anak Selangor Berhad (KOSAS)

YBrs. En. Ahmad Luqman bin Mohd. Azmi
Chief Operations Officer, Malaysia Airlines Berhad

YBrs. Dr. Sharifah Adlina binti Syed Abdullah
Ministry of Finance Malaysia

YBrs. Mr. Shahril Anwar Mohd Yunos
Managing Partner, Virtus Capital Partners Sdn Bhd

YBrs. Ts. Zainab binti Ahmad
Chief Director, Jabatan Pendidikan Politeknik dan Kolej Komuniti, Kementerian Pengajian Tinggi

YBrs. Prof. Dr. Yusri bin Yusof
Professor, Universiti Tun Hussein Onn Malaysia

Alternate Member

YBrs. Ts. Haji Mohamad Amin bin Hamat
Deputy Chief Director, Ministry of Higher Education

Secretary

En. Abdul Halim bin Abdul Rahman
Registrar, Universiti Tun Hussein Onn Malaysia

Members of Senate

Chairman

YBhg. Prof. Datuk Ts. Dr. Wahid bin Razzaly
Vice Chancellor

Members

Prof. Dr. Azme bin Khamis
Deputy Vice Chancellor (Academic and International)

Prof. Dr. Mohd Shahir Shamsir Bin Omar
Deputy Vice Chancellor (Research and Innovation)

Assoc. Prof. Ts. Dr. Lokman Hakim bin Ismail
Deputy Vice Chancellor (Student Affairs and Alumni)

Assoc. Prof. Dr. Mohd Kamarulzaki bin Mustafa
Provost UTHM Pagoh Campus

Prof. Dr. Ahmad Tarmizi bin Abd Karim
Assistant Vice Chancellor (Strategic Planning and Corporate Relations)

Assoc. Prof. Dr. Mas Fawzi bin Mohd Ali
Assistant Vice Chancellor (Financial Sustainability)

Prof. Dr. Shahruddin bin Mahzan @ Mohd Zin
Dean, Centre for Graduate Studies

Assoc. Prof. Ir. Ts. Dr. Mohd Irwan bin Juki
Dean, Faculty of Civil and Environmental Engineering

Assoc. Prof. Dr. Rosli bin Omar
Dean, Faculty of Electrical and Electronic Engineering

Assoc. Prof. Ir. Ts. Dr Bukhari bin Manshor
Dean, Faculty of Mechanical and Manufacturing Engineering

Prof. Dr. Wan Fauzi@Fauziah binti Wan Yusoff
Dean, Faculty of Technology Management and Business

Assoc. Prof. Ts. Dr. Abdul Rasid bin Abdul Razzaq
Dean, Faculty of Technical and Vocational Education

Ts. Dr. Azizul Azhar bin Ramli
Dean, Faculty of Computer Science and Information Technology

Prof. Dr. Hashim bin Saim
Dean, Faculty of Applied Science and Technology

Assoc. Prof. Dr. Jumadi bin Abdul Sukor
Dean, Faculty of Engineering Technology

Assoc. Prof. Dr. Mohamad Zaky bin Noh
Dean, Centre for Diploma Studies

Assoc. Prof. Dr. Khairul Azman bin Mohamad Suhaimy
Dean, Centre for General Studies and Co-curricular

Dr. Zailin Shah binti Yusoff
Dean, Centre for Language Studies

Prof. Dr. Erween bin Abdul Rahim
Director, Centre for Academic Development and Training

Assoc. Prof. Ts. Dr. Razali bin Hassan
Director, Malaysia Research Institute for Vocational Education and Training

Prof. Ts. Dr. Abd Halid bin Abdullah
Faculty of Civil and Environmental Engineering

Professor Dr. Noridah binti Mohamad
Faculty of Civil and Environmental Engineering

Prof. Dr. Mohammad Faiz Liew bin Abdullah
Faculty of Electrical and Electronic Engineering

Prof. Ir. Dr. Md Saidin bin Wahab
Faculty of Mechanical and Manufacturing Engineering

Prof. Dr. Yusri bin Yusof
Faculty of Mechanical and Manufacturing Engineering

Prof. Dr. Abdul Talib bin Bon
Faculty of Technology Management and Business

Prof. Dr. Rosziati binti Ibrahim
Faculty of Computer Science and Information Technology

Prof. Dr. Nazri bin Mohd Nawi
Faculty of Computer Science and Information Technology

Prof. Dr. Rozaini bin Roslan
Faculty of Applied Science and Technology

Assoc. Prof. Ts. Dr. Mohd. Farhan bin Md. Fudzee
Director, Information Technology Centre

Ir. Ts. Dr. Rahab inti Abdul Rahman
Industry Fellow

En. Abdul Halim bin Abdul Rahman
Registrar / Secretary of Senate

Mr Norzaimi bin Hamisan
Bursar

Mdm. Zaharah binti Abd Samad
Acting Chief Librarian

Mdm. Norliah binti Yaakub
Head of Legal Unit

Centre for Diploma Studies

Centre Vision

Excellent in providing multidisciplinary education in science and technology.

Centre Mission

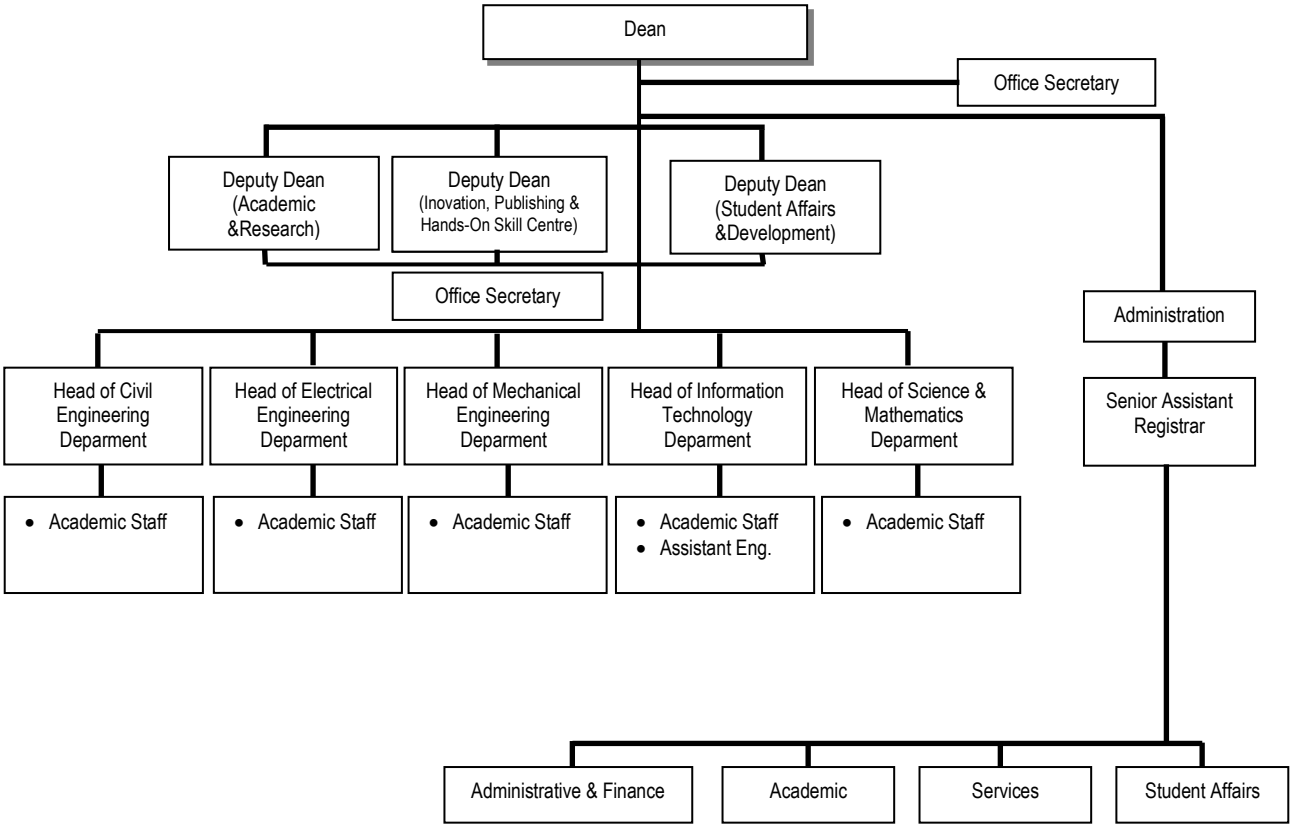
Producing graduates who contribute to national development through a holistic academic program.

Diploma programmes had been offered in UTHM since the establishment of Pusat Latihan Staf Politeknik (PLSP) in 1994. It started with only three programmes which were managed by the respective departments. All programmes were transferred to the corresponding faculties when Kolej Universiti Teknologi Tun Hussein Onn (KUiTTHO) was established in 2001.

The establishment of the Centre for Diploma Studies was announced by the Vice Chancellor on the 1st of August 2009. This enabled all diploma programmes to be centrally managed under one roof which would increase the competitiveness of the programmes offered.

It is the aim of the Centre for Diploma Studies to offer diploma programmes at UTHM which are going to be the main choice of applicants. All diploma programmes at UTHM are conducted using the Outcome Based Education (OBE) philosophy since 2010/2011 academic session. The implementation of OBE is in line with the wish of the Ministry of Higher Education in ensuring the highest quality of graduates. Students are expected to show academic excellence, as well as participating in co-curriculum activities which will further develop their potential in order to achieve the quality needed to fulfil the global occupational market. In addition, graduates of these programmes also have the widest opportunity to further their studies at Bachelor Degree level at various faculties in UTHM.

Now, the Centre for Diploma Studies offers seven (7) diploma programmes which are managed by five (5) departments and is led by a Dean who is assisted by three (3) Deputy Deans. The organizational chart of the Centre for Diploma Studies is shown in the next page.



Organisational Chart of Centre for Diploma Studies

Programme External Examiner

Prof. Dr. Mohd Shahrizal Sunar
Professor
School of Computing
Faculty of Engineering
Universiti Teknologi Malaysia

Programme Industrial Advisor

Mr Hairil Izwan Isamuddin
Country Manager (Malaysia, Brunei, Indonesia)
CompTIA

Staff Directory

Administration

Dean
Associate Professor Dr. Mohamad Zaky bin Noh
Ph.D (Physic) (USM), MSc. (Physic) (UTM), BSc. (Physic) (UTM)

Deputy Dean (Academic and Research)
Ts. Hj. Amir Khan bin Suwandi
MSc. (Civil Engineering) (UTM), BSc. (Hons) (Civil Engineering) (Portland State Univ. USA), Dip. Ed.(Civil Engineering Studies) (UTM)

Deputy Dean (Student Affairs and Development)
Pn. Ziana binti Che Ros
M. Eng (Electrical) (UTHM), B. Eng. (Hons) (Electrical Engineering.) (UTM), Diploma (Electrical Engineering) (UiTM)

Deputy Dean (Innovation, Publication and Hands-On Skill Centre)
Associate Professor Ts. Hj. Masiri bin Kaamin
MSc.(Land Survey-GIS) (UTM), BSc.(Land Survey) (UTM)

Assistant Office Secretary
Nor Suraya binti Abdul Samad
BSc. (Computer Mathematics) (UiTM), Dip. (Computer Science) (UiTM)

Administrative Assistant (Deputy Dean Secretary)
Nurul Farhana binti Ashaari
Dip. (Public Administration) (Diploma Vokasional Malaysia)

Senior Assistant Registrar
Cik Norfaizah binti Sai
BSc. Human Resources (UPM)

Assistant Administrative Officer (Academic)
Latifah binti Mohd Nasir
Dip. (International Business) (Politeknik Shah Alam)

Assistant Administrative Officer (Administrative and Finance)
Nur Izzati Hazwani binti Muhammad Ridwan
BSc. (Administration)(UiTM), Dip. (Tech. Management) (UTM)

Senior Administrative Assistant (Clerical & Operation) Student Affairs and Alumni
Ismade bin Niam

Senior Administrative Assistant (Clerical & Operation) Administrative and Finance
Dorazi bin Md Noh

Administrative Assistant (Clerical & Operation) Academic
Razali bin Ahmad

Administrative Assistant (Clerical & Operation) Development, Research and Publication
Muhammad Firdaus bin Yaacob

Operation Assistant
Azwan bin Roslee

Department of Information Technology

Academic Staff

Head of Department
Ts. Mohd Hatta bin Mohamed Ali @ Md Hani
P. Tech., MSc. Information Technology (UiTM), BSc. Software Engineering (UPM), Dip. Computer Science (UPM), Post Graduate Diploma in Higher Education (UTHM)

Prof. Madya Miswan bin Surip
MSc. Computer Science (Salford Manchester), BSc. Computer Science (UPM)

Ts. Dr. Noordiana binti Kasim @ Kassim
P. Tech., PhD. Mechanical Engineering (UTHM). MSc. Mechanical Engineering (UTHM), BSc. Information Studies (UiTM), Post Graduate Diploma in Higher Education (UTHM)

Ts. Dr. Shelena a/p Soosay Nathan
P. Tech., PhD. Information Technology (UUM), MSc. Information Technology (UUM), BSc. (Information Technolgy) (UUM), Post Graduate Diploma in Higher Education (UTHM)

Dr. Zuraida binti Ibrahim
BSc. Information Technology (UKM), MA Visual Communication and New Media (UiTM), PhD. Educational Technology (UTHM)

Ts. Rafizah binti Mohd Hanifa
P. Tech., MSc. Information Technology (UUM), BSc. Computer Science (USM), Post Graduate Diploma in Higher Education (UTHM)

Ts. Rosni binti Ramle
P. Tech., MSc. InformationTechnology (UiTM), BSc. Business Computing (UiTM), Post Graduate Diploma in Higher Education (UTHM)

Ts. Mazniha binti Berahim
P. Tech., MEd. Mathematic (UTM), BSc. Computer Science (UTM), Dip. Information Technology (UTM), Post Graduate Diploma in Higher Education (UTHM)

Hj. Hannes bin Masandig
MSc. Information Technology (UiTM), Adv. Dip. Mechanical Engineering (UiTM), Dip. Mechanical Engineering (UTM)

Mariam binti Abdul Hamid
MSc. Management Information System (UiTM), BSc. Information Technolgy (UiTM), Post Graduate Diploma in Higher Education (UTHM)

Rosfuzah binti Roslan
MSc. Computer (UTM), BSc. (Computer) (UTM), Dip. (Computer Science) (UTM)

Mohd Suhaimi bin Md. Yasin
MA.Phil (Seni Kreatif)(UMS), BA.Hons (Seni Kreatif) (UMS)

Abdul Halim bin Omar
MSc. Information Technology (UTHM), BSc. Information Technology (UTHM)

Muhamad Hanif bin Jofri
MSc. Information Technology (UTHM), BSc. Information Technology (UTHM)

Juliana binti Mohamed
MSc. Information Technology (UTHM), BSc. Multimedia (UUM)

Fawwaz bin Mohd Nasir
MPhil. Computer Science (UTM), BSc. Computer Science (UTM)

Hazwani binti Rahmat
Dip. Information Technology (KUITTHO), BSc. Information Technology (UTHM), MSc. Computer Science (UPM)

Technical Staff

Mohd Niza bin Shamsudin
Dip. Electronic Engineering (Politeknik Ibrahim Sultan), Cert. Electric and Electronic Engineering (Politeknik Kota Melaka)

Muhd Amin bin Saad
Dip. Electronic Engineering (Komputer) (Politeknik Sultan Idris Shah Selangor)

Ammirul Daniel bin Azizan
Dip. Electronic Engineering (Komunikasi) (Politeknik Ibrahim Sultan)

Aims of Programme

To produce a semi-professional workforce in solving ICT problems whether in the public, private or self-employed sectors. The program also prepares students to continue their studies to a bachelor's degree at a local or foreign university.

Programme Educational Objectives (PEO)

PEO 1 Demonstrate knowledge, understanding, and cognitive skills in the field of Information Technology.

PEO 2 Demonstrate functional work skills related to Information Technology.

PEO 3 Demonstrate personal and entrepreneurial skills in the field of Information Technology.

PEO 4 Demonstrate ethics and professionalism in Information Technology.

Programme Learning Outcomes (PLO)

PLO 1 Demonstrate systematic comprehension of a broad range of technical and theoretical knowledge and skills within Information Technology.

PLO 2 Identify, interpret, design, apply and evaluate general concepts, theory and/or operational principles within a well-defined context of Information Technology.

PLO 3 Apply a limited range of practical skills, essential tools, methods and procedures in Information Technology.

PLO 4 Collaborate effectively as member of a diverse Information Technology team.

PLO 5 Communicate effectively in both verbal and written among computing community and society.

PLO 6 Use a broad range of information, media and technology applications.

PLO 7 Demonstrate skills to use and interpret numerical and graphical data.

PLO 8 Demonstrate effective leadership, autonomy and responsibility as an individual and in diverse teams.

PLO 9 Recognize self-directed lifelong learning and professional pathways to enrich Information Technology knowledge and competencies.

PLO 10 Demonstrate an awareness of management and technopreneurship practices in Information Technology.

PLO 11 Demonstrate compliance with organizational and professional ethics, and apply sustainable practices in the context of Information Technology work and social environment.

Curriculum Structure

Year	Semester	Course Code	Courses	Credit	Total
	Special	UQU 10403	Introduction to Nationhood and Development of Malaysia	3	7
		UQI 10402 / UQI 11502	Introduction to Islamic Studies / Moral Studies	2	
		UWB 10*02	Foreign Language	2	
1	I	UHB 10302	English for Academic Survival	2	18
		UQ* 1***1	Co-Curriculum 1	1	
		DAN 20103	Business and Entrepreneurship	3	
		DAT 13303	Computer Algorithm	3	
		DAT 10303	Fundamentals of Operating System	3	
		DAT 10503	Introduction to Information Technology	3	
		DAT 11403	Multimedia Concept	3	
	II	UHB 20302	Academic Communication	2	19
		UQ* 1***1	Co-Curriculum 2	1	
		UQI 11402	Philosophy and Current Issues	2	
		DAT 10603	Principles of Programming	3	
		DAT 10703	Computer Architecture	3	
		DAT 10803	System Analysis and Design	3	
		DAT 10203	Discrete Mathematics	3	
		DAT 10102	Human Computer Interaction	2	
2	I	UHB 30502	English for Workplace	2	17
		DAT 20103	Database	3	
		DAT 21303	Web Development	3	
		DAT 20303	Object-oriented Programming	3	
		DAT 20603	Management Information System	3	
		DAT 20503 / DAT21403	Mobile Computing / 3D Modelling and Animation	3	
	II	DAT 20102	Occupational Safety and Health	2	17
		DAT 20703	Data Communications and Networking	3	
		DAT 21104	Diploma Project	4	
		DAT 21502	Information Technology Professional Ethics	2	
		DAT 20803 / DAT 21003 / DAT 21103	Cyberpreneurship / Artificial Intelligence / Visual Programming	3	
		DAT 20803 / DAT 21003 / DAT 21103	Cyberpreneurship / Artificial Intelligence / Visual Programming	3	
3	I	DAT 30112	Industrial Training	12	12
				Overall Total Credit	**90**

Universiti Courses

Year	Semester	Course Code	Courses	Credit	Total
	Special	UQU 10403	Introduction to Nationhood and Development of Malaysia	3	7
		UQI 10402 / UQI 11502	Introduction to Islamic Studies / Moral Studies	2	
		UWB 10*02	Foreign Language	2	
1	I	UHB 10302	English for Academic Survival	2	3
		UQ* 1***1	Co-Curriculum 1	1	
	II	UHB 20302	Academic Communication	2	5
		UQ* 1***1	Co-Curriculum 2	1	
		UQI 11402	Philosophy and Current Issues	2	
2	I	UHB 30502	English for Workplace	2	2
				Overall Total Credit	**17**

Synopsis of Universiti Courses

UQU 10403 Introduction to Nationhood and Development of Malaysia

Synopsis

This course discusses History and Politics, Malaysian Constitution, National Administrative System and Structure, Society and Unity, National Development as well as Religion and Beliefs. This course aims to produce graduates who have a national identity and a spirit of superior patriotism. Teaching and learning will be implemented in the form of lectures, assignments, examinations and learning experiences.

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4. Nazaruddin Haji Mohd Jail, Ma'rof Redzuan, Asnarulkhadi Abu Samah dan Ismail Hj Mohd Rashid. (2004). Pengajian Malaysia: Kenegaraan dan Kewarganegaraan.
5. Nazri Muslim. (2015). Islam dan Melayu: Tiang Seri Hubungan Etnik di Malaysia. Bangi: Penerbit UKM.

UQI 10402 Islamic Studies

Synopsis

This course explains about Islamic concept as ad-deen. It discusses the study of al-Quran and al-Hadith, Sunnism, schools of Islamic theology, development of schools of Fiqh, principles of muamalat, Islamic Criminal Law, Islamic work ethics, issues in Islamic family law and current issues.

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UQI 11502 Moral Studies

Synopsis

This course explains about the introduction to moral concepts, moral aspects and their importance in daily life. Western moral theory as well as the pure values of the great religions of the world. Morality in various fields of employment, ethics in science and technology and finally current moral issues.

References

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UQI 11402 Philosophy and Current Issues

Synopsis

This course covers the relationship of philosophy with the Philosophy of National Education and Rukunegara. The use of philosophy as a tool to purify the culture of thought in life through art and thinking methods as well as human concepts. The main topics in philosophy namely epistemology, metaphysics and ethics are discussed in the context of current issues. Emphasis is given to philosophy as the basis for inter-cultural dialogue and fostering common values. At the end of this course, students will be able to see the disciplines of knowledge as a comprehensive body of knowledge and related to each other.

References

1. Al-Attas, S.M. Naquib. (1991). The Concept of Education in Islam. Kuala Lumpur: ISTAC.
2. Al-Farugi, I.R. (1994). Al-Tawhid: Its Implications for Thought and Life, (2nd Ed.). Herndon: IIIT.
3. Phillips, D.C. (Ed.) (2014). Encyclopaedia of Educational Theory and Philosophy, (1st Ed.). SAGE Publication.
4. Dzulkifli, A.R. & Rosnani, H. (2019) Pentafsiran Baharu Falsafah Pendidikan Kebangsaan dan Pelaksanaannya Pasca 2020. Kuala Lumpur: IIUM Press.
5. Hospers, J. (1997). An Introduction to Philosophical Analysis, (4th Ed.). London: Routledge.

UHB 10302 English for Academic Survival

Synopsis

This course focuses on developing students' acquisition of English language skills required for higher education. This course assists students to read, write, listen and speak effectively and to become informed, literate and lifelong learners. By the end of the course, students should be able to use English for a wide range of personal and academic activities in the context of tertiary education.

References

1. Clark, R. C. (2004). Graphics learning: Proven guidelines for planning and evaluating visuals in training materials. San Fransisco, CA: Pfeiffer. LB1043.5 .C52 2004
2. Dunne, E. (1994). Talking and learning in groups. London: Routledge. LC6519 .D86 1990 N1
3. Galanes, G. J. (2013). Effective group discussion: Theory and practice (14th Ed.). New York: McGraw-Hill. HM736 .G34 2013
4. Greasley, P. (2011). Doing essays and assignments: Essential tips for students. Thousand Oaks, CA: Sage Publication. LB1047.3 .G73 2011
5. Lim, P. L. (2014). Listening & notetaking skills 2 (4th Ed.). Boston: National Geographic Learning. PE1128 .L55 2014

UHB 20302 Academic Communication

Prerequisite Course: UHB 10302 English for Academic Survival

Synopsis

This course introduces students to critical reading and writing skills. Students are expected to read and respond critically to academic materials. This course will also provide opportunities for students to develop their academic writing skills in producing technical papers.

References

1. Anderson, P.V. (2014). Technical communication: a reader-centered approach. Boston : Cengage Learning.PE1475 .A52 2014
2. Fairbairn, Gavin J. (2011). Reading, Writing and Reasoning; A Guide for Students. Maidenhead: Open University Press, 2011. LB2395 .F34 2011
3. Jordan, R. R. (2003). Academic Writing Course; study skills in English (3rd Ed.). Essex: Longman. PE1408 .J67 2003.

4. Langan, John. (201I). College Writing Skilts (8th Ed.). New York: McGraw-Hill. PE1471 .L36 2011.
5. Lewis, Jill. (2002). Reading for Academic Success: Reading and Strategies. Boston: Houghton Mifflin. LB2395.3 .L48 2002.

UHB 30502 English for Workplace

Prerequisite: UHB 20302 Academic Communication

Synopsis

This course employs a task-based learning approach and focuses on developing students' delivery of speech in oral interactions and job interviews. Particular emphasis will be given to promote the mastery of self-directed learning, team-work, research, reasoning and creativity. This course also enables students to acquire the knowledge skills necessary for conducting and participating in meetings, which include writing of meeting documents and event proposals based on specific themes. Students will also be exposed to interview techniques.

References

1. Allen, J. G. (2004). The complete Q and A job interview book (4th Ed.). Hoboken, NJ: John Wiley. HF5549.5.16. A44 2004.
2. Corfield, R. (2008). Preparing the perfect job application: Application forms and letters made easy. New Delhi: Kohan Page. HF5383 .C67 2008.
3. Haynes, M. E. (2009). Meeting skills for leaders: Make meetings more productive (4th Ed.). Rochester, NY: Axzo Press. HD30.3 .H39 2009.
4. Wendleton, K. (2014). Mastering the job interview and winning the game (5th Ed.). Boston: Cengage Learning. HF5549.5.I6 .W46 2014.
5. Wrathall, J. (2011). Event management: Theory and practice. North Ryde, N.S.W: McGraw-Hill. GT3405 .W72 201.

UWB 102 Foreign Language**

Synopsis

This course is designed for students to learn the basic foreign language. Students are exposed to the skills of listening, reading, speaking, and writing with basic vocabulary, grammar and structure. Students are also exposed to the real daily situations which will help them to communicate using foreign language.

References

1. Booth, Trudie Maria, 2008. French Verbs Tenses. Mc Graw-Hill. Call no. : P 2271, U66 2008.
2. Lim Hong Swan, Yeoh Li Cheng, 2010. Mandarin Made Easy Through English. Batu Pahat: Penerbit UTHM. PL1129.E5 .L554 2009
3. Mohd Hisyam Abdul Rahim; Ahmad Sharifuddin Mustapha; Mohd Zain Mubarak. 2008. Bahasa Arab UMR 1312. Batu Pahat: Penerbit UTHM. PJ6115 .M445 2008
4. Surie Network, (2000): Minna no Nihongo: Kaite Oboeru, Tokyo: 3A Corporation. PL539.3 M56 2000
5. Gabriele Kopp, Siegfried Büttner, 2004. Planet 1: Deutsch für Jugendliche: Kursbuch. Ismaning: Germany: Hueber Verlag. PF3129. K664 2004

UQ* 101 Co-Curriculum I**

Synopsis

The course offer various form of activities for student of Bachelor Degree and Diploma. Eight fields of activities offer are Public Speaking, Entrepreneurship, Sports, Community Services, Volunteership, Leadership, Culture and Innovation

UQ* 101 Co-Curriculum II**

Synopsis

The course offer various form of activities for student of Bachelor Degree and Diploma. Eight fields of activities offer are Public Speaking, Entrepreneurship, Sports, Community Services, Volunteership, Leadership, Culture and Innovation.

Synopsis of Centre Courses

DAN 20103 Business and Entrepreneurship

Synopsis

This course aims nurturing an entrepreneurial culture among students and exposed them to the basics of entrepreneurial concept, entrepreneurial attributes as well as the development of creative and innovative skills that allow them to identify business opportunities and non-business. This course is designed to ensure students gain knowledge and skill related to fundamental of business and entrepreneurship such as introduction to entrepreneurship, business ownership, regulations and support services, business environment asessment, marketing plans, operational plans, financial planning and business management plans.

References

1. Norliza Ghazali & Raudah Mohd Adnan: *Perniagaan dan Keusahawanan,* Penerbit UTHM, 2016
2. UiTM Entrepreneurship Study Group (2011). Engineering Entrepreneurship. Prentice Hall. (HB615.F86 2004)
3. Ariffin, S, Hamidon, S (2017). Introduction to Entrepreneurship. Oxford Fajar, Kuala Lumpur
4. Bessant J. Tidd, Joseph. (2011). Innovation and Entrepreneurship. 2nd ed. West Sussex: Wiley. (HD53.B48 2011)
5. Oxford Fajar (2013). Third Edition. Entrepreneurship. Sarimah Hanim Aman Shah & Cecilia Soon Teik Lan.

DAT 20702 Occupational Safety and Health

Synopsis

This course introduces students to knowledge and skills in occupational safety and health in workplace. Scope of study includes Health, Safety and Environment Managements: introduction to OSH, OSHA 1994 (Act 514), FMA 1967, EQA 1974, occupational safety and health management system, safety, health and environment culture; Risk Management and Assessment: introduction to risk management, risk assessment techniques, HIRARC; Physical Injury & Controls: introduction to physical injury, construction work, electrical work, mechanical work, chemical work; Health Hazards: introduction to health hazards & hygiene, chemical hazards, physical hazards, biological hazards, hygiene; Accident Investigation & Reporting: introduction, accident investigation, investigations and causes of incident, incident analysis and data collection method.

References

1. Anton, Thomas J. (2009). Occupational Safety and Health Management. 3rded. New York: McGraw-Hill. [T55.A57 1989].
2. Davies, V. J. and Tomasin K. (2006). *Construction Safety Handbook*. 2nd ed. London: Thomas Telford. [TH443.R43 2006].
3. Factories and Machinery Act & Regulations. MDC Publishers Printer Sdn. Bhd. 2001. [KPG1390.A31967 .A4 2001 rw N1.]
4. Ismail Bahari (2006). *Pengurusan Keselamatan dan Kesihatan Pekerjaan.*Edisi ke-2.. McGraw Hill Education (Malaysia). [T55.I85 2006].
5. *Occupational Safety and Health Act and Regulations*. MDC Publishers Printer Sdn. Bhd. 2001. [KPG1390.M34 2001 rw N2.]

Synopsis of Programme Courses

DAT 10103 Operating System

Synopsis

The goal of this course is to introduce the key components of a typical operating system and its services. In addition, it also discusses the function of each manager and its role in coordinating system operational tasks.

References

1. Silberschatz, A., 2014. Operating System Concepts, 6th Edition, London: Addison Wesley. QA76.76.O63 .S54 2014
2. Stalling, W. 2012. Operating Systems Internals & Design Principles, 5th Edition, New York: Pearson Education International. QA76.76.O63 .S74 2012
3. Davis & Rajkumar, 2005.Operating Systems, 6th Edition, New York: Pearson Education International. QA76.76.O63 .D29 2005
4. Deitel, Deitel & Choffnes, 2004. Operating Systems, 3rd Edition, New York: Pearson Education International. QA76.76.O63 .D44 2004
5. Nutt, G. 2004. Operating System: A Modern Perspective, London: Addison Wesley. QA76.76.O63 .N884 2004

DAT 10203 Discrete Mathematic

Synopsis

This course introduce students to the rich mathematical structures that naturally describe much of the content of the computing area, many structure logical and mathematical thinking. It focuses on basic logic, sets, relations and functions, as well as graphs theory which integrate symbolic tools, graphical concepts, principles, proof techniques and numerical calculations to the Information Technology.

References

1. Harris Kwong (2015), A Spiral Workbook for Discrete Mathematics, Open SUNY Textbooks,ISBN:978-1-942341-16-1
2. Rosen, K.H (2012) Discrete Mathematics and Its Applications , 7th Edition, McGraw Hill, ISBN:978-0-07-338309-5
3. Oscar Levin (2016), Discrete Mathematics: An Open Introduction, CreateSpace Independent Publishing Platform, ISBN-10: 1534970748
4. Jean H.Gallier (2017), Discrete Mathematics, Springer

DAT 10303 Computer Algorithm

Synopsis

This course will focus on algorithm design in problem solving using textual and graphical representations. It will also introduce students to the techniques of problem solving using modular approach. Students are expected to develop the ability to define and analyse problems and design efficient algorithmic solutions.

References

1. Panneerselvam, R. (2007). Design and analysis of algorithms. New Delhi: Prentice-Hall of India. Call Number QA76.9.A43 .M63 2012

2. Backhouse, R. (2011). Algorithmic problem solving. Chichester, West Sussex: Wiley. Call Number QA76.9.A43 .B32 2011

DAT 10403 Introduction to Information Technology

Synopsis

This course introduces students to information technology, computer hardware, computer software, file and data management, information systems, telecommunications, telecommunications technology, internet and current issues involving information technology.

References

1. **Brian Williams, 2011.** Using Information Technology 9e Introductory Edition**, 9th Edition**. Mc-Graw Hill Company.QA76.5 .W54 2011
2. Carol V. Brown Daniel W. DeHayes Jeffrey A. Hoffer Wainright E. Martin William C. Perkins, 2009. **Managing Information Technology, 6th Edition.** Pearson Education, Inc. T58.6 .M364 2012
3. Lawerence Snyder, 2011. Fluency with Information Technology: Skills, Concepts & Capabilities, 4th Edition, Pearson Education, Inc. T58.5 .S69 2011
4. Information technology for business.2011. 2nd, Singapore: Cengage learning, HD30.2 .I55 2011
5. William J. GibbsPatricia J. Fewell, 2009. **Microsoft Office for Teachers, 3rd Edition.** Pearson Education, Inc. HF5548.4.M525 .F48 2006

DAT 10503 Multimedia Concept

Synopsis

This course introduces students to multimedia concept, applications and techniques. Topics covered include introduction to multimedia, multimedia project development, multimedia component: text, audio, graphic, animation and video. Multimedia documentation and hypermedia, and also application will be discussed.

References

1. Mark Guzdial & Barbara Ericson, 2010. *Introduction to Computing and Programming in Pytho: Multimedia Approach, 2nd Edition*, Prentice Hall. QA76.73.P98 .G89 2005
2. Shelly, Gary, 2012. *Web design: Introductory.* Boston, MA. TK5105.888 .S53 2012
3. **Tay Vaughan, 2011,** *Multimedia Making It Work Eighth Edition**, 8th Edition***, Mc-Graw Hill. QA76.575 .V38 2008
4. Guan, Ling, 2012. *Multimedia image and video processing.* CRC Press. QA76.575.M853 2012
5. Savage, 2014. *An introduction to digital multimedia.* Jones & Bartlett Learning. QA76.575 .S28 2014

DAT 10603 Computer Architecture

Synopsis

This course introduces student on fundamental of computer architecture, computer components and functions, data representation in computer system, arithmetic logic operation, digital logic, input and output, memory organization and set instruction.

References

1. Hennessy, John L. 2012. *Computer Architecture: A Quantitative Approach***.** 5th Ed. Waltham, MA: Morgan Kaufmann/Elsevier. QA76.9.A73 .H46 2012
2. Null, Linda. 2015. *The Essentials of Computer Organization and Architecture*. Burlington, Mass.: Jones and Bartlett Learning. QA76.9.C643. N84 2015
3. Shiva, Sajjan G.2014. *Computer Organization, Design, and Architecture. 5th ed*. Boca Raton: CRC Press. TK7885 .S59 2014.
4. Stallings, William. 2013. *Computer Organization and Architecture: Designing for Performance. 9th ed*. Boston, MA: Pearson Education. QA76.9.C643 .S72 2013

DAT 10703 Programming Principles

Synopsis

This course introduces students to the basic concepts of Computer Science and Programming. At the end of the term, the students are expected to be fairly good at basic concepts in Computer Science and proficient in computer programming using imperative paradigm. The focus of the course will be on general programming principles/techniques, whereas, C will be the language to implement these concepts. Key procedural programming topics like variables, arrays, strings, functions, pointers/references will be covered in detail.

References

1. Prakash, S. (2015). *Programming in C*. New Delhi: I K International Publishing House. ISBN: 9789384588779
2. Pal, M. (2013). *C programming*. Oxford: Alpha Science International. ISBN: 9781842657584
3. McGrath, M. (2012). *C Programming in Easy Steps*. 4th ed. Warwickshire: In Easy Steps. ISBN: 9781840785449
4. Tan, H. (2012). *C programming: A Q& A Approach*. Singapore: McGraw-Hill Education (Asia). ISBN: 9780071311168

DAT 10803 System Analysis and Design

Synopsis

This course introduces students to the concepts, skills, methodologies, techniques, tools, and perspectives essential for systems analysts. The practical component is object oriented and use-case driven, requiring students to go through the steps of system analysis and design to solve a real-life business problem.

References

1. John W. Satzinger, Robert B. Jackson, Stephen D. Burd. 2015. Systems Analysis and Design in a Changing World. 7th Edition. Cengage Learning.
2. Tilley S. 2016. Systems Analysis and Design (Shelly Cashman Series), 11th Edition, Course Technology.
3. Kendall, K. E. & Kendall, J .E. 2013. Systems Analysis and Design. 9th Edition. New Jersey: Prentice Hall.

DAT 10902 Human Computer Interaction

Synopsis

This course intended to introduce the student to the basic concepts of human-computer interaction. In addition, It will cover the basic theory and methods that exist in the field. The course will unfold by examining design and evaluation. Case studies are used throughout the readings to exemplify the methods presented and to lend a context to the issues discussed.

References

1. Pearson, Alan Dix. 2004. *Human Computer Interaction*, Third Edition, Edinburgh Gate, Harlaw:, (ISBN-13: 978-0-13-046109-4).
2. Yvonne Rogers. 2011. *Interaction Design: Beyond Human Computer Interaction*, 3rd Edition, Wiley, (ISBN-10: 0470665769)

DAT 20103 Database

Synopsis

This course introduces students to foundation in data management concepts and database systems. It includes representing information with the relational database model, manipulating data with an interactive sequence query language (SQL) and database programming, development, security, integrity and privacy issues.

References

1. Dahlan M.H, Che Hussin A.R, Selamat M.H, Othman M.H, Zakaria N.H, Ibrahim R, Bahari M., 2013, Sistem Pangkalan Data, Edisi 2, Penerbit UTM.
2. Connolly T., **:Begg C. 2014. Database Systems** A Practical Approach to Design, Implementation, and Management (6th Edition), 6th Edition**.** Pearson.
3. Coronel, C., Morris, S., & Rob, P., 2015. Database Systems: Design, Implementation, and Management. 8th Ed. Boston, MA: Course Technology.

DAT 20203 Web Development

Synopsis

This course introduces students to web programming. It covers, among others, mark-up language, client-side scripting and server-side scripting.

References

1. Luke Welling & Laura Thomson, 2009. PHP and MySQL Web Development, 4th Edition. Prentice Hall. QA76.73 .P224 .W44
2. Roger S Pressman & David Lowe,, 2009. Web Engineering: A Practioner's Approach, 1st Edition. Mc-Graw Hill. TK5105.88813 .P73
3. Vikram Vaswani, 2005, How to Do Everything with PHP and MySQL, 1st Edition.. Mc Graw Hill. QA76.73.P224 .V37

DAT 20303 Object Oriented Programming

Synopsis

This course exposes students to object and object oriented programming concepts. Discussion topics include introduction to OOP, primitive and operator data type, basic to OOP, objects and classes as well as inheritance and polymorphism, overloading, templates and exception.

References

1. Joyce. F., 2012. Java Programming. 6th Edition. Course Technology, Cengage Learning. QA76.73.J38.F38 2012
2. 1. Carrano, Frank, M., 2011. Imagine! Java: Programming Concepts in Context. Prentice Hall. XX(129456.1) 2011
3. John, D. & Ray, D., 2008. Introduction to Programming with Java: A Problem Solving Approach, 1st Edition. Mc-Graw Hill. QA76.73.J38 2008
4. Ralph, B. & Shai, S., 2010. Java Programming: From the Ground Up. 1st Edition. Mc-Graw Hill. QA76.73.J38.B73 2010
5. Daniel, Y.L., 2011. Introduction to Java Programming. Comprehensive Version. 8th Edition. Prentice Hall. QA76.73.J38.L52 2011

DAT 20403 Management Information System

Synopsis

This course introduces student different types of management information system in an organization. Then, expose the students the information system used in assisting an organization to address the information management issues and make a decision.

References

1. Lauder, K. C & Laudon, J. P(2014), Management Information System 13th Edition, Pearson Education, ISBN 13: 978-0-273-78997-0
2. Bidgoli, Hossein (2013) MIS 3. Course Technology. HF5548.2.B52 2013
3. David M. Kroenke (2011) Using MIS, 3rd ed. Prentice Hall. HD30.213 .K76
4. Wang, Hai (2014) Programming Languages for MIS: Concepts and Practice. Boca Raton: Taylor and Francis. T58.6 .W36 2014.
5. Rafael Lapiedra/ Carlos Devece (2012) Introduction to Management Information Systems, Publicacions de la Universitat Jaume I. Servei de Comunicació, ISBN: 978-84-695-1639-0

DAT 20503 Mobile Computing

Synopsis

This course is intended to introduce the students with basic of mobile technology principles and theory involved in development of mobile applications and introductory level of mobile application development using open operating system.

References

1. Pattnaik P. K., Mall R. Fundamentals of Mobile Computing. 2nd Edition, PHI Learning Pvt. Ltd.
2. Key S. 2015. Power Guide for Beginners in Android App Programming, CreateSpace Independent Publishing Platform.
3. Boyer R., Mew K. 2016. Android Application Development Cookbook. 2nd Ecition, Wrox.
4. Bill P.,,.Chris S Kristin M. 2017. Android Programming, 3rd Edition, The Big Nerd Ranch .Guide

5. Dawn G., David G. 2015. Head First Android Development: A Brain-Friendly Guide. O'Reilly Media.
6. Neil S., 2017. Android Studio 3.0 Development Essentials – Android, 8th Edition. Kindle Edition

DAT 20603 3D Modelling and Animation

Synopsis

This course introduces students to 3D animation fundamental concepts of modelling, lighting, texturing, layout, timing and movement. Students will also develop the practical skills to generate design concepts and computer-based imagery, and produce a simple 3D animation sequence. By exploring the unique properties of 3D animation and the relationships that arise with other creative mediums, students will develop their knowledge and skills in making best use of a range of models, platforms and techniques within a conceptual framework.

References

1. Boardman**.** Ted. 2013. Getting Started In 3D With 3Ds Max: Model, Texture, Rig, Animate and Render In 3Ds Max. New York: Focal Press. TR897.7 .B62 2013.
2. Chris Georgenes, 2011. Animation with scripting for Adobe Flash Professional CS5 Studio Techniques Adobe Press. TR897.7.G46
3. Fullmer, Donna Lynne. 2013. 3D Design Basics. New York, NY: Fairchild Books. NA2750 .F84 2013
4. Cai, Yiyu. 2013. 3D Immersive and Interactive Learning. New York: Springer. LB1028.3 .D55 2013
5. Murdock, Kelly L., 2011. 3ds max 2012 bible. Wiley Pubishing, Inc. TR897.7.M878 2011

DAT 20803 Data Communications and Networking

Synopsis

This course introduces student to the concepts of data communication and network technology based on reference model representation. It will provide the foundational understanding of network layers 1-3 that are applicable to routing and switching plus other advanced technologies. Other topics have been added for student to understand further the interactions and network functions and it application in real world.

References

1. Forouzan B. A. 2007. *Data Communications and Networking, 4th Edition*, McGraw Hill. Call Number: TK5105 .F67 2007
2. Stallings, W. 2005. *Business Data Communications, 5th Edition*, New York: Prentice Hall. QA76.76.O63 .S54 2005
3. Stallings, W. 2011. *Data and Computer Communication, 7th Edition*, New York: MacMillan. TK5105 .S73 2011
4. Comer, D. D. R. 2004. *Computer Networks and Internets with Internet Applications*, New Jersey: Prentice Hall. TK5105.5 .C654 2004
5. Tanenbaum, A.S. 2003, *Computer Networks, 4th Edition*, New Jersey: Prentice Hall. TK5105.5.T36 2011
6. Wendell Odom, 2008. *CCENT/CCNA ICND1 Official Exam Certification Guide*, Second Edition, Cisco System Inc.

DAT 20902 Information Technology Ethics and Professionalism

Synopsis

This course introduces students to information technology computer ethics, intellectual copyright, censorship issue, cyber safety and cyber law in Malaysia for safe computing.

References

1. Kennedy, Helen (2012) Net Work: Ethics and Values in Web Design New York: Palgrave Macmillan. TK5105.888 .K46 2012
2. Reynolds, George W.2015. Ethics in Information Technology. 5th ed. Australia: Cengage Learning. HC79.I55 .R49 2015
3. Tavani, Herman T. (2011) Ethics and Technology: Controversies, Questions, and Strategies for Ethical Computing. 3rd ed. Hoboken: Wiley. TK5105.5 .T38 2011
4. Winston, Morton Emanuel. (2012) Society, Ethics, and Technology. 4th ed. Boston: Wadsworth Cengage Learning. T14.5 .S62 2012
5. Whiteman, Natasha. (2012) Undoing Ethics: Rethinking Practice in Online Research. New York: Springer. ZA4228 .W44 2012

DAT 21004 Diploma Project

Synopsis

This course is designed to apply theoretical knowledge and improve student skills in the process of mastering problem solving and practise professionalism in managing project.

References

1. Shelena Soosay Nathan, Mazniha Berahim, Rafizah Mohd Hanifa, 2018. Learning Module: DAT 21104 Project Diploma DAT 21104, UTHM
2. John W. Satzinger, Robert B. Jackson, Stephen D. Burd. 2015. Systems Analysis and Design in a Changing World. 7th Edition. Cengage Learning.
3. Tilley S. 2016. Systems Analysis and Design (Shelly Cashman Series), 11th Edition, Course Technology.
4. Kendall, K. E. & Kendall, J .E. 2013. Systems Analysis and Design. 9th Edition. New Jersey: Prentice Hall.
5. Schwalbe K. 2015. Information Technology Project Management, 8th Edition, Course Technology.
6. George R, Ralph M. S. 2017. Principles of Information Systems, 13th Edition. Cengage Learning, Inc.

DAT 21103 Cyberpreneurship

Synopsis

This course is designed to provide students with basic knowledge of entrepreneurship and cyberpreneurship as well as to increase students' interest to involve in cyber entrepreneurship. Besides that, it will increase the understanding and knowledge about cyber entrepreneurship encompassing commercialization, business idea creation, business proposal preparation, financial and marketing strategies.

References

1. Kariv, Dafna. (2011). Entrepreneurship: an international introduction. Taylor & Francis, Call number: HB615 .K37 2011.

2. Hisrich, Robert D. (2014). Advanced introduction to entrepreneurship. Edward Elgar Publishing, Call Number: HB615 .H576 2014.
3. Kuratko, D. F. (2016). Entrepreneurship: Theory, process, and practice. Cengage Learning.
4. Devinney, T. M., Markman, G., Pedersen, T., & Tihanyi, L. (2016). Global Entrepreneurship: Past, Present & Future. Emerald Group Publishing.
5. Mohd Nazri Khan, (2006). Cyberpreneurship. Pearson. Call Number: HB615 .M52 2006

DAT 21203 Visual Programming

Synopsis

This course is intended to provide an introduction to Visual Studio.NET programming concepts through the use of high level languages such as C#, VB.NET or ASP.NET. The students will learn on how to define and solve problems before coding the program. The development of interfaces for portable devices is also covered.

References

1. J.C.Bradley & A.C.Millspaugh. 2005. *Programming in Visual Basic .NET*. **Mc-Graw Hill.** QA76.73.B3.B724.
2. N.Randolph & D.Gardner**.** 2009. *Visual Studio 2008*. Wrox Publisher. TK5105.8885.M57.R36
3. **J.Plenderleith & S.Bunn. 2009.** *Microsoft Visual Studio 2008 Programming.* **Mc-Graw Hill.** TK5105.8885.M57.P53
4. **D.I.Schneider. 2006.** An *Introduction to Programming using Visual Basic 2005.* **Pearson Education.** QA76.76.M525 .S36

DAT 21303 Artificial Intelligence

Synopsis

This course provide students an introduction to artificial intelligence, with an emphasis on the design of agents that act intelligently. The lesson focus on agents that can reason from their stored knowledge, using logic-based and/or probability-based techniques as appropriate.

References

1. Luger, G. F. 2009. *Artificial intelligence: Structures and* strategies *for complex problem solving.* 6th ed., Sydney: Cummings Publishing. Call number: Q335 .L84 2009.
2. Bratko, I. 2001. *PROLOG programming for artificial intelligence.* 3rd ed., London: Addison Wesley. Call number: Q336 .B72 2001 N4
3. Efraim, T., Aronson, J. E. Liang T. & McCarthy R.V. 2011. *Decision support and business intelligence systems*. 9th Ed. New York: Prentice Hall. Call Number: HD30.2 .D42 2007
4. Moss, C. 1994. *PROLOG++: The power of object-oriented and logic programming*.London: Addison Wesley. Call number: -
5. Rich, E., Knight, K. & Shivashankar B. N. 2008. *Artificial intelligence*. 3rd ed., New York: Mc Graw Hill. Call number: HD30.2 .R52 2008

DAT 30112 Industrial Training

Prerequisite: Students are required to take at least 80% of the entire course.

Synopsis

Students are required to attend 24 weeks practical training at government or private sector. During this period, they will be given assignments or projects that approved by the faculty and agency in advanced. The approved assignments or project are related to their respective areas of specialization.

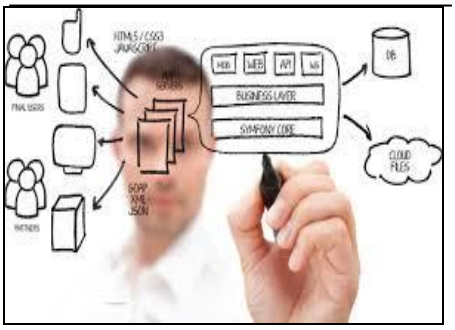
References

Buku Panduan Latihan Industri UTHM, Edisi 4. Penerbit UTHM, 2019.

Career and Education Prospect

Graduates of the program have a wide range of career opportunities. A conducive learning environment with an emphasis on practical skills allow graduates to have careers related to information technology as follows:

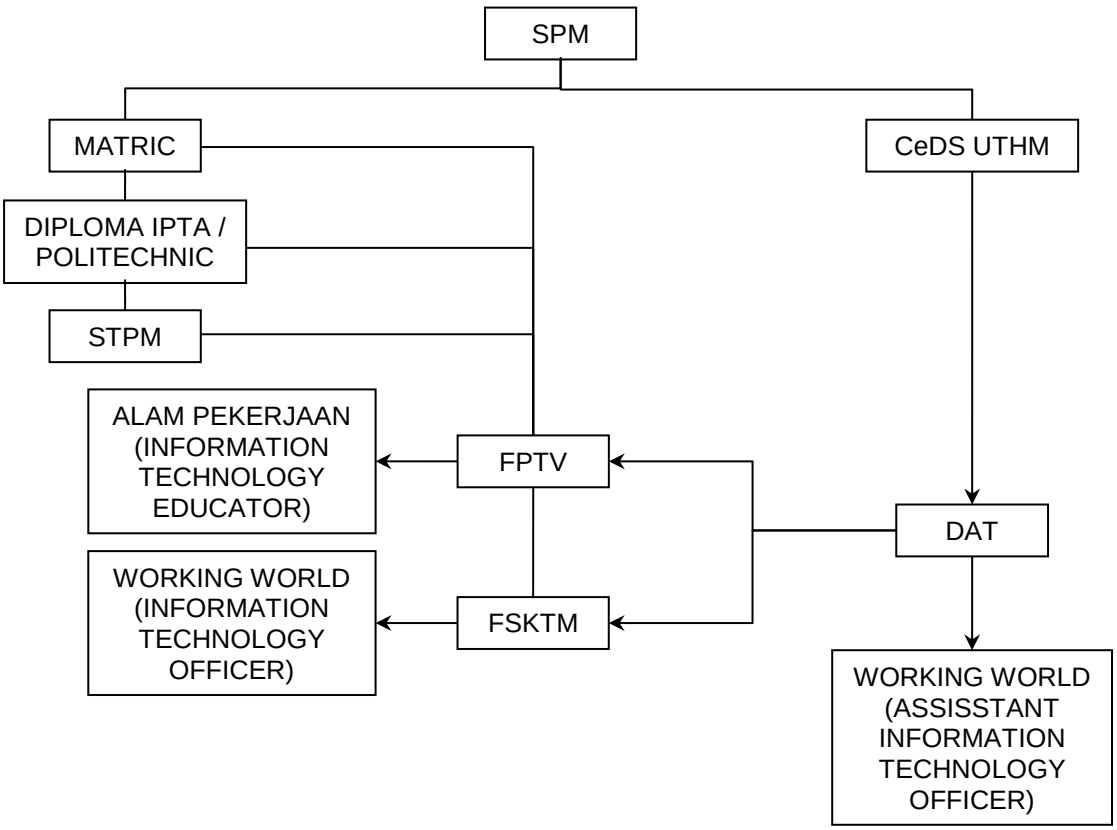
- application and web development
- database
- cyber security
- computer network
- cloud computing
- technical support
- analyst
- multimedia
- technical sales representative
- project manager



In addition, with the recognition that has been given by the Public Service Department and the Malaysian Qualifications Agency (MQA), graduates of this program are eligible to continue their studies to degree level, whether in or outside the State subject to the conditions set by the university admission applicable.

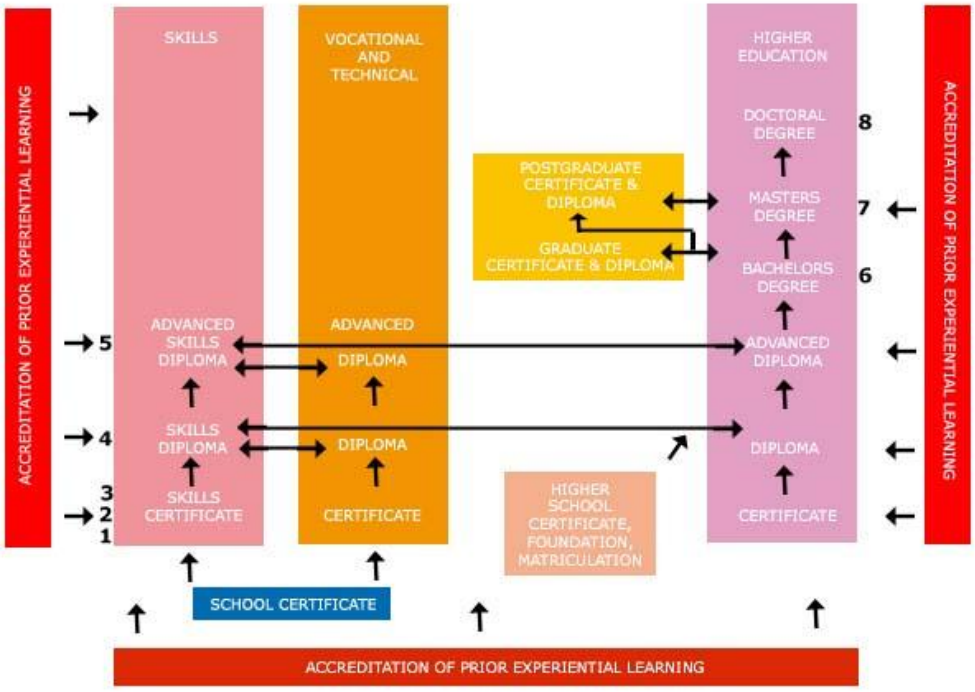
Education pathway in UTHM according to Malaysian Qualifications Framework as shown in the diagrams on the next page.

Further Education Pathway



Guide:
DAT – Diploma in Information Technology
FPTV – Faculty of Technical and Vocational Education
FSKTM – Faculty of Computer Science and Information Technology

MQF BASED ON QUALIFICATION LEVEL AND EDUCATIONAL PATHWAY



MALAYSIAN QUALIFICATIONS FRAMEWORK: QUALIFICATIONS AND LEVELS

<table>
<tr><th rowspan="2">MQF Levels</th><th colspan="3">Sectors</th><th rowspan="2">Lifelong Learning</th></tr>
<tr><th>Skills</th><th>Vocational and Technical</th><th>Higher Education</th></tr>
<tr><td>8</td><td colspan="2" rowspan="5"></td><td>Doctoral Degree</td><td rowspan="10">Accreditation of Prior Experiential Learning (APEL)</td></tr>
<tr><td rowspan="2">7</td><td>Masters Degree</td></tr>
<tr><td>Postgraduate Certificate & Diploma</td></tr>
<tr><td rowspan="2">6</td><td>Bachelors Degree</td></tr>
<tr><td>Graduate Certificate & Diploma</td></tr>
<tr><td>5</td><td>Advanced Diploma</td><td>Advanced Diploma</td><td>Advanced Diploma</td></tr>
<tr><td>4</td><td>Diploma</td><td>Diploma</td><td>Diploma</td></tr>
<tr><td>3</td><td>Skills Certificate 3</td><td rowspan="3">Vocational and Technical Certificate</td><td>Certificate</td></tr>
<tr><td>2</td><td>Skills Certificate 2</td><td rowspan="2"></td></tr>
<tr><td>1</td><td>Skills Certificate 1</td></tr>
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