

## THE ACADEMY OF ARTS & CREATIVE TECHNOLOGY (ACT)

UH6	UH6212001 - MUSIC								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER				
1	CM10302	MAJOR STUDY I	This course provides students with the playing and performing techniques, including vocals that are currently practiced by professional instrumentalists/soloists in the music industry. Strong emphasis is given to the development of music reading and various techniques relating music phrasing, articulation, and dynamics.	2	1/1				
2	CM10901	INSTRUMENTAL & VOCAL ENSEMBLE I	This course provides students with the opportunity to join an ensemble according to their knowledge of a particular instrument. Those who are majoring in vocals and who do not have any formal music training in orchestral instruments are encouraged to join the choir. Those with formal training in musical instruments such as strings, brass, winds, and keyboards are required to join the orchestra. The instrumental / vocal ensemble focuses on the performance in a variety of musical styles.	1	1/1				
3	CM11603	MALAYSIAN TRADITIONAL MUSIC I	This course gives students the opportunity of learning the traditional instruments that are commonly found in Malaysia, Sabah. Students are given various songs which include traditional and popular tunes using these traditional musical instruments.	3	1/1				
4	CM23402	MUSIC AND BUSINESS MANAGEMENT	The main objective of the course is to disseminate knowledge of the music business adequately to the students through lecture, discussion, and analysis of business data. Students will also be given the task of reviewing the development of the local music industry more closely through field work to know the various organization and key individuals in the music industry and establish a networking between the students with organizations in the music industry.	2	2/1				

UH62	UH6212002 - CREATIVE ARTS									
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER					
1	CA23103	COMPOSITION AND CHOREOGRAPHY	This course allows students to learn about the key elements of producing good staging - from the use of space by dancers, music, and dance scores to the use of stage and technical tools. The combination of composition and choreography will produce a dynamic and balanced visual staging. Students' theoretical knowledge will be strengthened through practical training.	3	2/1					
2	CA34103	COSTUME DESIGN	This course is one of the core subjects of the program providing basic knowledge of general garment design as well as learning the basic techniques of sewing to be applied for final projects in the form of fashion show.	3	3/1					
3	CA31703	THEATER & FILM PRODUCTION TECHNOLOGY	This course is a continuation of the CA22403 Production Procedure 2 (PP2) course. As PP2 exposes students to the film and theater production	3	3/1					

			process comprehensively, this course focuses on the production process which consists of the uses and changes of technology such as pre-visualization process, cinematography (camera), video / film and audio editing process, visual effects, film processing and technology shows (satellite and 3D). Students will also be exposed to new media such as web- based technologies as a platform to publish publications. Through the individual producing digital films practical, this course is expected to strengthen students' skills in the field of video or film making.		
4	CA31003	MARKETING OF CREATIVE WORKS	This course will expose students to the marketing concept which includes the concept of consumer behavior, purchase decision-making process and marketing mix (4P). Discussion of marketing strategies using marketing mix (4p's) namely, product, price, place and promotion will be discussed in detail. Students will also be exposed to forms of business and product marketing. To ensure that the students understand the concept of marketing, they are also required to produce the end product which has to do with the field of the arts.	3	3/1

UH62	UH6210001 - VISUAL ARTS TECHONOLOGY							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	CV21902	DIGITAL AUDIO VIDEO PRODUCTION 1	This course provides students with an understanding and skills on the basics of digital audio and video in the film, television, animation industries. Technical skills of cameras, storyboards, computer hardware, audio software and video editing. Students are trained in the production of professional audio and video ideas.	2	2/1			
2	CV33302	3D ANIMATION	The 3D Animation Course is an extension of the 3D Animation Basic Course (CV21202). This course touches on the concept of 3D animation as a whole and explains how 3D animation is produced, the types, and ways to apply the 3D animation production process in depth. Among the techniques touched on are Key Framing, Rigging, Posing, rigid body dynamics, Path animation, motion capture, particle system, fluid animation, deformation, hair, cloth, and soft bodies. Students will use open-source software: Blender, in addition to introductions to MAYA and 3D Studio Max. This course is thoroughly explained before students produce the final project.	2	3/1			
3	CV33502	WEB INTERACTIVE	This course discusses the basic concepts, principles, and techniques of website development. This course is important because it provides understanding and skills to students about designing websites using multimedia authoring software, programming languages, upload results online on the web site as well as training students to produce ideas and skills in an interactive website.	2	3/1			
4	CV21302	BASIC 2D ANIMATION	This course exposes students to the basics in producing two-dimensional (2D) animation works. This course focuses on animation's elements and principles, such as the 12 principles of animation, character formation, movement and time. Students are also exposed to the stages of the animation production process, pre-production, production and post-production. This course also touches on the introduction to types of animation including computer	2	2/1			

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	animation that is suitable for the current industry.		



#### LABUAN FACULTY OF INTERNATIONAL FINANCE

UH63	UH6343002-INTERNATIONAL FINANCE						
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	GT01203	Financial Management	Understanding finance is essential for success regardless of personal life or in one's specific job as everyone has to deal with financial matters one way or another. This makes it important for everyone, especially those who plan to work for business organization to learn the fundamentals of finance. Tasks can be performed better in any business functions if personnel understand finance. Thus, this course is designed for all business students, not just for finance majors. The topics covered are time value of money, financial statements, and financial markets as part of fundamental concepts of financial management, bonds, stocks, rates of return, interest rates, cost of capital and capital budgeting.	3	1/1		
2	GT20203	Operations Management	Operation management is based on the basic change in the nation's economy from manufacturing sector to service provider. This course examines the management system of an organization, which has an impact on productivity and quality of products and services produced by an organization. Important issues discussed in this course include materials and inventory management, management quality, logistics and distribution, manufacturing process, supply chain management, and evaluation of work and time.	3	2/1		
3	GA30303	Global Finance	This course will expose students to various important aspects and issues related to international financial management. This course describes the theories and practices of multinational finance. Topics of the course include environment of international financial management, foreign exchange theory, foreign exchange market, foreign exchange exposure, financing the multinational corporation, foreign investment analysis, and financing foreign trade	3	3/1		
4	GA30003	Current Issues in International Finance	This course is conducted in the form of a seminar, where a number of speakers such as practitioners and researchers will be invited to present relevant topics and share their experience. Among the issues to be discussed are the international financial system, financial products and instruments, globalization, the challenges of the industry and other contemporary issues.	3	3/1		



UH63	JH6343003-INTERNATIONAL & OFFSHORE BANKING							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	GT01203	Financial Management	Understanding finance is essential for success regardless of personal life or in one's specific job as everyone has to deal with financial matters one way or another. This makes it important for everyone, especially those who plan to work for business organization to learn the fundamentals of finance. Tasks can be performed better in any business functions if personnel understand finance. Thus, this course is designed for all business students, not just for finance majors. The topics covered are time value of money, financial statements, and financial markets as part of fundamental concepts of financial management, bonds, stocks, rates of return, interest rates, cost of capital and capital budgeting.	3	1/1			
2	GB30003	International Financial Institutions	This course is designed to introduce knowledge and basic ideas of conventional financing and banking systems and institutions. The topics covered are historical background, regulatory framework, competition among institutions, development, and uses of financial tools and methods for bank's assets or liabilities management, banking risks, and security portfolios. Other subjects covered are performance evaluation for financial institutions, cash and reserve management, investment and loans portfolio management, liabilities management, and bank's capital management.	3	2/1			
3	GB30503	International and Offshore Banking	This course emphasizes on the advantages of international and offshore banking such as global transactions, duty free businesses, tax free returns, stringent laws on account secrecy, formation of international business firms, and foreign currency trading. Topics of discussion will be the basic of international and offshore banking management, decision making process, data analysis, investment transactions, services transactions, invoicing and reinvoicing.	3	3/1			
4	GB30703	International Money and Capital Markets	This course aims to introduce to students and provide understanding on the mechanism of money and capital markets. This course will discuss the basic aspects of the financial system via examination of the roles and functions of central bank, intermediaries (financial institutions), capital market, currency, foreign exchange and instruments traded and sources and usages of funds. Economics and finance models are also used in the teaching and learning process.	3	3/1			



NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER
1	GC20103	International Marketing	Marketing is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organization goals. An organization that engages in global marketing focuses on global market opportunities and threats. One difference between "regular" marketing and "global" marketing is the scope of its activities. A global marketing company conducts business outside the home country. Global marketing involves in understanding of specific concepts, considerations, and strategies applied in conjunction with marketing fundamentals to ensure success in global markets.	3	2/1
2	GC30703	Cyber Marketing	The course aims to provide students with comprehensive exposure in integrating marketing and others electronic components. The rapid advance of new technology and its application demand that students of electronic marketing always keep abreast with all its new developments. From the course, students will gain knowledge, skills, and experience associated with competitive store location and layout, organizational structure, operations management, merchandise management, and retail information systems.	3	3/1



UH63	UH6343004-INTERNATIONAL FINANCIAL ECONOMICS								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER				
1	GT01203	Financial Management	Understanding finance is essential for success regardless of personal life or in one's specific job as everyone has to deal with financial matters one way or another. This makes it important for everyone, especially those who plan to work for business organization to learn the fundamentals of finance. Tasks can be performed better in any business functions if personnel understand finance. Thus, this course is designed for all business students, not just for finance majors. The topics covered are time value of money, financial statements, and financial markets as part of fundamental concepts of financial management, bonds, stocks, rates of return, interest rates, cost of capital and capital budgeting.	3	1/1				
2	GD30603	International Economic Institutions	This course addresses the key concepts and principles on international trade and international economic institutions (e.g. IMF, World Banks, WTO etc). This course also examines the contemporary and historical issues in international economics institutions and financial relations. Besides, it looks at the evolution of these international economic institutions with an emphasis on key political and economic agreements activities that impact international financial crises and its economic policies.	3	3/1				
3	GD31103	International Macroeconomics	This course exposes students to the models and issues in international macroeconomics. It begins with an introduction to macroeconomic accounting and some standard open-economy macroeconomic models through their both theoretical and fundamental concepts. These models are then used to understand important issues in international macroeconomics including: the exchange rate, and exchange rate regimes, the current account, international capital mobility, monetary unions and monetary policy in open economies. This course emphasizes in-depth understanding of the above through research individual assignment and group projects and presentations.	3	3/1				



UH63	UH6343005-ISLAMIC FINANCE							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	GE20803	Deposit Operation and Islamic Banking Financing	Islamic banking as an industry has seen phenomenal growth since its rebirth in recent times, posting stable double-digit growth. It has transcended the Muslim world. Many international banks now offer Shariah -compliant products and services. Islamic banking is an instrument for the development of an Islamic economic order. This course will enable students to understand the practices of Islamic banking in Malaysia as well as other countries. Topics covered in this course focus on Islamic banking concepts and values, its developments, Islamic financial product and financing, the Shariah supervision, accounting procedures and legal framework. Then, for the rest of the semester, the course will examine the various operational issues in Islamic banking practices.	3	3/1			
2	GE30003	Islamic Financial Institutions and Markets	This course focuses on the trade of instruments in the Islamic money and capital market and roles and functions of Islamic banking sector. This course covers risk management for Islamic instruments, forwards, futures and stock-index future, option equity and others.	3	3/1			
3	GE30603	Islamic Accounting System	This course is designed to provide students with the Islamic accounting knowledge and skill. In order to reach this, this course provides a discussion of accounting framework, standards and practices of Islamic financial institutions (IFIs) and financing instruments. The objectives and concepts of accounting for IFIs will be discussed. In this course, students will be revealed on the secret of Islamic accounting ranges from the view of Islam on Islamic accounting to accounting for zakat. Furthermore, issues on Mudarabah, Musyarakah, and Ijarah accounting will be further elaborated in this course. As an enhancement, students are also dealt with auditing issues in IFIS.	3	3/1			



#### FACULTY OF COMPUTING AND INFORMATIC

UH64	UH6481001/HC00 - COMPUTER SCIENCE (SOFTWARE ENGINEERING)							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTE R			
1	KK24503	REQUIREMENT ENGINEERING	Requirements engineering is one of the fundamental activities in software development life cycle. This course describes the process of eliciting, analyzing, specifying, documenting, validating and managing the requirements during software development process.	3	2024/ sem1			
2	KK34703	WEB ENGINEERING	This course is designed to expose students to the principles of web technologies, the web design framework, and the development of a full-stack web application. Students will practice designing front-end applications using client-side scripting and developing back-end applications using server-side programming languages. This course also exposes students on web data modelling integration to implement a responsive and secure web application.	3	2024/ sem1			
3	KK34102	SOFTWARE ENGINEERING PROJECT	The general objective of this course is to provide students with the opportunity to work in a group software development setting, working on real-life projects, and to learn and practice good interpersonal, software development, and project management skills.	2	2024/ sem1			
4	KK34302	PARALLEL PROGRAMMING AND DISTRIBUTED SYSTEM	This course will show students how to exploit different parallel architectures to improve your code's performance, scalability, and resilience. Students will learn about two main components which are parallel programming and distributed system.	2	2024/ sem1			
5	KT24703	COMPUTER ARCHITECTURE & ORGANIZATION	This course will provide the students an introductory knowledge about the architecture of computer systems and the technology behind the computer system design. This is done through the learning of computer Evolution and Performance, System Buses, Internal and External memory, Input/Output, Memory Management, Computer Arithmetic and Instruction Sets.	3	2024/ sem1			

UH64	UH6481002/HC05 - COMPUTER SCIENCE (NETWORK ENGINEERING)								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTE R				
1	KP24203	ROUTING PROTOCOLS AND CONCEPTS	This course focuses on switching technologies and router operations that support small-to-medium business networks. It includes wireless local area networks (WLANs) and security concepts. Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN	3	2024/ sem1				
2	KP44102	CLOUD COMPUTING	The course presents a top-down view of cloud computing, from applications and administration to programming and infrastructure. Its main focus is on parallel programming techniques for cloud computing and large scale distributed systems which form the cloud infrastructure. The topics include: overview of cloud computing, cloud systems, parallel processing in the cloud, distributed storage systems, virtualization, security in the cloud, and multicore operating systems.	2	2024/ sem1				
3	KP14102	SOFTWARE ENGINEERING	This is an introductory course in software engineering, described in the ACM/IEEE-CS Joint Task Force on Computing Curricula's Computer Science Curricula	2	2024/ sem1				

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			2013 as "the discipline concerned with the application of theory, knowledge, and practice to effectively and efficiently build reliable software systems that satisfy the requirements of customers and users." Course topics will include software engineering principles, development methodologies, requirements analysis, project planning, software design, software construction, software process metrics, project management, software testing, quality assurance, and team processes.		
4	KP34102	NETWORK PROJECT MANAGEMENT	The course is prepared for the students by exposing the knowledge of how to well manage and plan especially in related to network or telecommunication projects. Students are provided with the basic understanding of the principles, concepts and theory of modern project management apart from equip them with a generic set of quantitative and qualitative project planning and control tools and techniques. Demonstration of the importance of project management as specialism in its own right, and the potential contribution that it can make to an organization. Students will define the role and current issues faced by project managers and be provide basic training in the Microsoft Project scheduling software package.	2	2024/ sem1
5	KT24703	COMPUTER ARCHITECTURE & ORGANIZATION	This course will provide the students an introductory knowledge about the architecture of computer systems and the technology behind the computer system design. This is done through the learning of computer Evolution and Performance, System Buses, Internal and External memory, Input/Output, Memory Management, Computer Arithmetic and Instruction Sets.	3	2024/ sem1

UH64	UH6481003/HC12 - MULTIMEDIA TECHNOLOGY							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1.	IT32603	Augmented Reality	This course will introduce you to the world of Augmented, Mixed, and Virtual Reality interfaces. These interfaces enable new kinds of user experiences by superimposing digital content onto the user's real-world view or creating fully immersive virtual world experiences. You will learn about the differences between AR/VR, about the technical and design requirements for creating such user experiences, and how to prototype and develop your first AR/VR interfaces. You will also receive an overview of new and evolving interaction design principles and methods, current AR/VR interface development approaches, and how to assess the usability of AR/VR interfaces.	3	2024/ sem1			
2.	IM12203	Multimedia Design	This course exposes students with multimedia design processes, particularly interactive multimedia. It focuses on the design aspects of digital media as well as on the theory and practice of the tools and techniques required for creating interactive multimedia.	3	2024/ sem1			
3.	IM22103	Video Production	The course describes the latest industry trends in video production. It will introduce the students to the video technologies and techniques that are relevant in ensuring successful video production project. By developing practical skills, it aids the student's own development, and provides a coherent overview of the issues that affect all in the converging industries of communications and media. The course will also provide practical advice and tips to help students deliver a high quality project on time and within budget.	3	2024/ sem1			
4.	IM22203	Animation	This course is an introduction to animation. It	3	2024/			

			combines both the history, the theoretical elements of animation aesthetics and concepts, with the practical knowledge of animation techniques required to produce animation. The students will be exposed to three dimensional (3D) digital creative content development processes such as storyboarding, modelling, animating, rendering, applying visual effects and compositing. Upon completion of the course, students will be able to produce one short 3D animation sequences.		sem1
5.	IM22503	Multimedia Web Programming	This course covers the main technologies and techniques of client-side web development, with emphasis on graphics and multimedia interface programming. It assumes a basic of software construction, and introduces CSS, DHTML, JavaScript, and interactive animation and multimedia programming in DirectX, SVG and SMIL. It will additionally cover key concepts for the server side of web applications, including key value stores and SQL servers	3	2024/ sem1



UH64	UH6481004/HC13 - INFORMATION TECHNOLOGY (BUSINESS COMPUTING)							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	IT22803	Big Data	This course provides an in-depth coverage of various topics in big data from data generation, storage, management, transfer, to analytics, with focus on the state-of-the-art technologies, tools, architectures, and systems that constitute big-data computing solutions in high-performance networks. Real-life big data applications and workflows in various domains (particularly in the sciences) are introduced as use cases to illustrate the development, deployment, and execution of a wide spectrum of emerging big-data solutions.	3	2024/ sem1			
2	IE12103	E-Commerce	The course will introduce a basic knowledge of e- commerce to students. The knowledge is introduced to the student in order to prepare them for the other courses in the e-commerce program. It requires the students to read the textbooks, listen to lectures and a great deal of work in planning and developing a web site.	3	2024/ sem1			
3	IE22503	Management Information System	This course teaches students how organisations use ICT and Information Systems to achieve their objectives. In the early part of this course, the discussions focus on how organisations use Information Systems to achieve their objectives. It is then followed by a discussion on how to secure information system. The latter parts discuss how IS can help managers to enhance decision making processes.	3	2024/ sem1			
4	IE32303	IT Project Management	Project management essentials affect the bottom line of information system project technical and business performance. By introducing this course, it will explore the application of knowledge, skills, tools, and techniques, that are used by project managers when managing information technology projects as well as the current IT factors that affect IT project management decision making. Special emphasis will be placed on learning the best practices currently used by organizations and practitioners to ensure the best chance for project success.	3	2024/ sem1			
5	IE32503	Analysis and Design for E- Commerce	This course will provide students with fundamental aspects in developing Information Technology projects. They will learn basic skills, methodologies, techniques, tools and perspective essential for systems analysts to develop information systems.	3	2024/ sem1			

UH64	UH6481005/HC14 - COMPUTER SCIENCE (DATA SCIENCE)									
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT YEAR/ HOUR SEMESTER						



#### FACULTY OF ENGINEERING

UH6	526001-CIVIL				
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER
1	KA10102	Civil Engineering Material	Introduction to common civil engineering materials used in construction. It discusses the performance of the construction materials, the composition, and engineering behaviours, manufacturing process, properties that affect their performance and how they are used in construction.	2	1/1
2	KA10502	Engineering Geology	Knowledge on identification, processes and formation of different types of rocks, and knowledge on geological surveys and investigation methods.	2	1/1
3	KA20703	Fluid Mechanics	Fluid flow has a broad application area. The importance of understanding the mechanics of fluids is apparent from when we turn on our kitchen faucets, thus activating flow through a network of pipes and valves, to when we drive our cars, which rest on pneumatic tires, have hydraulic shock absorbers, and pump gasoline through a complex piping system. As a result, it is vital that civil engineers develop a basic foundation in the mechanics of fluids before investigating these and other similar problems.	3	2/1
4	KA21102	Contract And Estimation	This course introduces the civil engineering students to the construction contract administrative and management, contractual relationship, the bid and award process, standard contract document, types of construction contract, Contracting method, construction contract procedure and guideline, type and condition of contract, taking off quantity and prepare the bill of quantity for structure and civil works.	2	2/1
5	KA23702	Concrete Technology	This course provides knowledge on concrete, its ingredients, strength development, types and tests on ingredients to develop concrete with good engineering properties. The procedure to design proportion of ingredients to make concrete of required strength is included. The properties of admixtures, effect of curing, handling and placing concrete are also to be discussed.	2	2/1
6	KA33903	Hydraulics	This course seeks to introduce basic principles of steady and unsteady flows; uniform and varied flows; resistance in open channels in steady flows; the application of energy and momentum principles in open channels; dimensional analysis and similarity; designs of open channels with the use of hydraulic software available.	3	3/1
7	KA34503	Highway Engineering	This course intends to provide an in-depth knowledge on the basic theory of highway engineering. Topics that will be discussed are basic road geometric design, highway materials, pavement design and construction, pavement rehabilitation and maintenance.	3	3/1

UH65	UH6523001-ELECTRICAL & ELECTRONICS ENGINEERING								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER				
1	KE17303	Electrical and Electronics System	The course has been designed to introduce fundamental principles of circuit theory commonly	3	1/1				

			used in engineering research and science application. Techniques and principles of electrical circuit analysis including basic concepts such as voltage, current, resistance, impedance, Ohm's law, basic electrical circuit techniques in both Dc and AC, resistive circuit, transient and steady state response of RLC circuits, circuits with DC and sinusoidal source, Ac steady state analysis, three phase balanced systems, including Laplace transformation circuit, Two ports network applications for solving circuit problems.		
2	KE49103	ALTERNATIVE ENERGY SOURCES	This course introduces energy systems and renewable energy resources, with a scientific examination of the energy field and an emphasis on alternate energy sources and their technology and application. The course will explore society's present needs and future energy demands, examine conventional energy sources and systems, including fossil fuels and nuclear energy, and then focus on alternate, renewable energy sources such as solar, biomass (conversions), wind power, geothermal, and hydro. Energy conservation methods will be emphasized.	3	4/1
3	KE49203	SOLAR ENGINEERING	The course introduces the different materials of solar panels with their characteristics, and analysis the maximum power point tracking and simulated by software. Different methods of tracking system are also given in detail with program codes and sensors. Energy efficiency of solar power is explained in detail analysis with the relation to different demands, distributed generators, energy mix and hybrid sources	3	4/1
4	KE44603	ANTENNA AND APPLICATIONS	Antenna acts as RF / microwave system's energy sensing purpose. Review of frequency domain electromagnetic wave dynamics, radiation, or RF energy liberates as well as receives by antenna as its universal characteristics will be discussed. Various types of commonly used wire and aperture antenna, and antenna array techniques, polarization, cross polarization and other aspects of antenna design and orientations will be addressed. Radio wave (RW) propagation characteristics, impedance of free space, different types of RW characteristic antennas, its virtual height, and reusable frequency for different sort of communication will be addressed. Current topics such as adaptive and smart antennas will be introduced.	3	4/1

UH65	UH6524001-CHEMICAL ENGINEERING								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER				
1	KC12303	Physical Chemistry	This course provide students with knowledge of the basic principle element, compound and mixture, ionic bonding, properties of element in periodic table and the relationship between the mol, mass and Avogadro's number and use them in solving stoichiometric problems. The syllabus also covers basic knowledge of gases, kinetics theory of gases,	3	1/1				

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			chemical kinetics and chemical thermodynamics of zero and first law, electrochemistry, as well as the basic concept of reaction kinetics.		
2	KC22303	Differential Equation	This course comprises of analytical solution of differential equations. Students will be evaluated on the basis of the application of differential equations and solving skills. Students will be exposed to the application of Laplace transforms in solving the differential equations.	3	2/1
3	KC22503	Chemical Process Principles	This course comprises of Chemical Process Principles which are relevant to chemical engineers. Students will be exposed to Chemical Process Principles issues and problems.	3	2/1
4	KC22903	Fluid Mechanics	The course provides preliminaries and background for understanding fluid flow studies, mainly focuses on flows of one-dimensional as well as introducing common turbo machineries applied in process industries	3	2/1
5	KC33703	Environmental Engineering	This course introduce environmental engineering with sufficient depth of knowledge in water resources engineering, water treatment, water pollution, wastewater treatment, air pollution, noise pollution, solid waste management, hazardous management and sustainability and green engineering. Ethics and introduction of laws and legislations on practicing engineering pertaining environment was also included in this course .This course apply sciences and mathematics to utilize the properties of matter and source of energy in the solution of environmental problems.	3	3/1
6	KC33303	Chemical Reaction Engineering	This course comprises of chemical kinetics and reactor design. Students will be evaluated on the basis of the application of chemical kinetics in the design of rectors and solving skills. Students will be exposed to the various rectors and effect of temperature and pressure.	3	3/1
7	KC33903	Mass Transfer	To expose students to the fundamentals and basic principles of mass transfer, and its applications in drying physical separation processes.	3	3/1

UH65	21001-MECH	HANICAL ENGINEERING			
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER
1	KM11103	COMPUTER AIDED ENGINEERING	This course focuses on the principles and applications of engineering drawing in product design and development processes with the aid of the computer aided design application tool (SolidWorks). The course will enable students to learn, explore, understand and apply the fundamental of engineering technical drawing which in depth on 1) Role of Engineering Drawing and CAD in product design and development; 2) Introduction of engineering blueprint; 3) Introduction of geometrical elements; 4) Drawing detailing through plane projection; 5) Solid modeling; 6) Engineering blueprint	3	1/1

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			development and presentation; 7) Machine elements drawing and presentation; and 8) Preliminary design check and visualization effect. CAD application (SolidWorks) will be applied and provide better understanding and innovation in this course teaching and learning activities.		UNVERSITI MALAYSIA SABA
2	KM10903	STATICS	This course introduces the principles of statics. The scope of the course covers the basic of the forces and moments, employing vectors for analysis. Kinematics and kinetics of a particle are then discussed to study the dynamic system involving a particle. The understanding of mechanics is required as an Engineer to mathematically model and predict the behaviour of physical systems.	3	1/1
3	KM20503	DIFFERENTIAL EQUATIONS	Differential equations and boundary value problem solving. Types and methods of solving differential equations. Focusing on linear differential equations of 1st-order to Higher–order type of problems. Including Laplace transforms; Series solution to linear differential equations; Modelling Spring-Mass-Damper problems, and solving of systems of linear differential equations	3	2/1
4	KM21102	ENGINEERING THERMODYNAMICS	The objectives of this course are to provide a foundation for students to produce work from heat by classical application of thermodynamics and to address critical twenty-first century issues such as fossil fuel development and greenhouse gas emissions and air and water pollution. Students also will be introduced to the thermodynamic properties and behavior of substances: internal energy, enthalpy, entropy, real gas, ideal gas and perfect gas behavior. Fundamentals of work and heat transfer, and the ability to apply the First and Second Laws of thermodynamics will be addressed. Students will be exposed to the concepts of theoretical efficiency limits, and introduced to power and refrigeration cycles	2	2/1
5	KM31703	CONTROL ENGINEERING	This course introduces the concepts of control systems towards the design of system stability. Prior to complex engineering problems, basic definition and system modeling will be discussed. Laplace Transform is reviewed to show the transformation differential equation into s-domain transfer function. Analysis of the control system will be carried out in time domain and frequency domain. Analysis of time domain is demonstrated using root locus. While in the frequency domain, Bode plot technique is used for stability analysis. The knowledge is applied for compensator design. The concept of PID controller will be introduced	3	3/1
6	KM42703	MANUFACTURING AND ENGINEERING TECHNOLOGY	This course aims to provide students with an understanding and appreciation of the breadth and depth of the field of manufacturing, and the strong interrelationships between manufacturing processes and systems such as product design, material properties and production line system. It will introduce some traditional manufacturing processes such as casting, forming, lathing, milling, polymer injection molding, and emerging manufacturing processes such as layer manufacturing, surface mount technology, manufacturing and nano-manufacturing. It will also discuss the need of flexibility inside the organization by using computer in manufacturing system, modern digital technologies used in manufacturing such as computer-aided design and engineering, computer-numerical control,Coding system and classification, group technology, Introduction to system and integration FMS, NC, DNC, CNC. Material handling, production management and advance factory system strategy and computer integrated manufacturing. Group	3	4/1

				Q	
			projects are designed to prepare the students to gain understanding of how everyday products are designed and manufactured. the difference between conventional machining, universal, NC and special machining. This course also discusses quality assurance and the quality implementation tools. TQM, TQC, 5S, ISO9000, Taguchi Method.		
7	KM44503	RENEWABLE ENERGY	This course is an elective course offered for Final Year Mechanical Engineering students to introduce the students to the basic science and terminology of various renewable energy technologies. The course covers energy conversion, utilization and storage for renewable technologies such as hydropower, wind power, solar energy, biomass, biofuel and geothermal. The course also touches upon the environmental consequences of energy conversion and how renewable energy can reduce air pollution and global climate change	3	4/1



UH65	UH6523002-ELECTRONIC ENGINEERING (COMPUTER)							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	KS06603	ENGINEERING PROGRAMMING	This course is an introduction to programming using C++ language. The course will introduce students to design and develop programs in C++. The topics covered include introduction to computer science and constructs in C++ including variable, assignment statement, selection structures, repetition and loops, modular programming, simple data types, arrays, strings, abstract data types, text file and dynamic data structures.	3	1/1			
2	KS10902	DISCRETE MATHEMATICS	This course is necessary for students to develop their mathematical maturity: that is, their ability to understand and create mathematical arguments. Discrete mathematics is the gateway to more advanced courses in all parts of the mathematical sciences. It provides the mathematical foundations for many computer science courses such as data structures, algorithms, database theory, compiler theory, computer security, and operating systems.	2	1/1			
3	KS21703	SOFTWARE ENGINEERING	The course is divided into three parts. The first part is a product and process which provides an introduction to software engineering. The second, software engineering practice that describes the application and practice of software engineering to develop a software. The third part explains software project management, describing topics regarding the planning, management and control of software development projects.	3	2/1			
4	KS30903	MEASUREMENT AND INSTRUMENTATION	This course covers static and dynamic characteristics of instrumentation systems, and accuracy and precision of measurements. It also covers typical measurement system elements, including sensing elements, signal conditioning elements and signal processing and data presentation elements. Sensor application topics such as flow measurement systems and ultrasonic measurement systems will also be included.	3	3/1			
5	KS32503	EMBEDDED SYSTEMS	In this course, the fundamentals of embedded system hardware and firmware design will be explored. Issues such as embedded processor selection, hardware/firmware partitioning, circuit design, circuit debugging, firmware design, firmware debugging, and development tools will be discussed. The Microchip PIC16F887, a popular microcontroller, will be studied. The MPLAB IDE assembly language, Proteus ARES/ISIS and EasyPIC v7 development board are chosen to meet computation, resource, firmware, and hardware development. This course will gear to the integration of hardware modules to construct complex embedded systems, and the programming models and characteristics of various input/out interfaces.	3	3/1			
6	KS32703	DATABASE SYSTEMS	This course studies the concepts of designing a database used to store data further data manipulation. The students will learn how a group of data stored in database, setup database server and access data in the database.	3	3/1			
7	KS41903	WIRELESS COMMUNICATION	This course aims to introduce the concepts of wireless/mobile communication using cellular environments. This course enables students to acquire knowledge of the various modulation techniques, propagation methods, coding and multi access techniques used in mobile communication. Various wireless network systems and standards are to be introduced.	3	4/1			
8	KS42503	ARTIFICIAL INTELLIGENT	In this course, students will learn the foundational principles that drive these applications and practice implementing some of these systems. Specific topics include machine learning, search, game playing,	3	4/1			

constraint satisfaction, graphical models, and logic. The main goal of the course is to equip students with the tools to tackle AI problems they might encounter in life. MATLAB software will be used for practical learning and projects.



UH6524002-OIL AND GAS ENGINEERING							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	KG12303	Introduction to Oil and Gas Engineering	This course introduces students to various disciplines in oil and gas engineering. The contents of the course includes the origin, migration, accumulation and the exploration of petroleum, the types and properties of reservoir rocks and reservoir fluid, and type of formation evaluation. This course also briefly discuss the operation and equipment used in drilling, well completion and production of petroleum.	3	1/1		
2	KG32103	Drilling Engineering	The aim of the course is to provide students with a fundamental understanding of petroleum well drilling procedures, its mechanics, and design methodology. The course gives an overview of drilling rig operations and related equipment; offshore drilling and advanced drilling tools; drill-string design; drill bit technology; drilling hydraulics; drilling mud design; pore pressure and fracture pressure calculations; basic casing design; basic well control; well planning.	3	3/1		
3	KG32703	Reservoir Simulation	This course includes derivations of basic equations and underlying principles used in developing reservoir simulators. It covers the development of a simple governing equation, partial differential equations for single-phase and multiphase flow in porous media. Finite difference approximations are used to solve the equations. Input data requirements and applications of simulation models for history matching and prediction of field performance will be discussed. A spreadsheet, i.e. Microsoft Excel, would be used for many of the examples and exercises.	3	3/1		



### FACULTY OF BUSINESS, ECONOMICS AND ACCOUNTANCY

UH63	UH6345001-ENTREPRENEURSHIP							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	BB20103	Creativity, Innovation and Entrepreneurship	The course provides an overview of the concept of creativity and innovation and its relationship with entrepreneurship. The ability to continuously develop successful innovative and creative products, services, processes and strategies is essential with the rise of global markets and the intensifying competition for customers, employees and other critical resources. This course enables students to acquire the skills, knowledge and attitudes needed for assessment and evaluation.	3	2/ 1			
2	BB30603	Corporate Entrepreneurship	Corporate entrepreneurship refers to the formal and informal process of creating new businesses, products, services, and processes to create value and generate new business growth inside of existing organizations. This course intends to provide an exposure to students to all aspects of corporate entrepreneurship that will include theoretical parts that support the corporate entrepreneurial concepts, the characteristics and nature of entrepreneurship in established organizations, vision and direction of entrepreneurial activity inside organisations and important elements in a supportive environment needed in corporate entrepreneurship.	3	3/1			

UH6343001-FINANCIAL MANAGEMENT AND BANKING							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	BT12103	Financial Management	This course is an introductory course in the field of finance. It covers the main idea in finance that starts with a general background, conceptual framework, and techniques to assist in managing financial decisions. The main focuses are fundamental principles fundamental principle, exercises, and modern financial management procedures. This subject will provide students the guidance in making personal, corporate, financial and investment decisions, as well as giving them a basic understanding in the field of finance.	3	1/2		
2	BD31603	Bank Management	Bank Management is a key component of the global economy. As an economic activity, it is central to the flow of capital worldwide through the provision of loans, the supply of financial advice and its involvement in securities markets. This course will provide insight into issues arising from Bank Management, which has been a growing trend since the 1960s. Therefore, the students will acquire a solid understanding of the recent development of Bank Management as well as the future.	3	1/2		



UH6811001-HOTEL MANAGEMENT							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	BE33103	Fundamental to Hospitality Management	The introductory course provides initial exposure of the vast scope of the hospitality industry that comprises various food establishments, lodging sectors and recreational and leisure theme parks alike. In addition, students will also be exposed to the structure, nature and operating characteristics of these different sectors of the hospitality industry. The holistic nature of this course provides insights on the nature of various career prospects in the hospitality industry and would assist students in shaping their expectation on the reality of this fascinating industry.	3	3/1		
2	BE33203	Event Management	The aim of this course is to equip students with essential training skills required to research, design, plan, execute and evaluate special events. This course imparts the logistical know-how and the theoretical understanding needed to take advantage of the countless opportunities in the MICE industry. From developing the event vision, sourcing fund and managing the financials to strategize marketing activities as well as managing operation on the day of the event.	3	3/1		

UH63	UH6345002-INTERNATIONAL BUSINESS							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	BA21003	Intro to International Business	This course aims to provide an overall idea of the scope of international business compared to domestic business. Students will analyse the global environment by determining the opportunities, challenges and complexities faced by companies operating in the international arena. Students will conduct country analysis to identify the similarities and differences between countries and determine the opportunities and risks of specific countries. Appropriate entry strategies for companies that plan to go international will also be identified and discussion on how companies that operate internationally are included.	3	2/1			
2	BA31103	International Human Resource Management	MNEs that have operations in different cultures need to balance its human resources from home, host or third country in order to achieve competitive advantage. The primary objective of this course is to increase students' understanding of HRM activities as conducted in a global context. The functional areas that will be discussed in this course include recruitment and selection of expatriates, training and development, evaluating performance, reward system for expatriates, and cultural impact on expatriates.	3	3/1			
3	BA21103	International Marketing	This course aims to provide an analytical but practical approach to the subject area of marketing management in an international context. The course focuses on the concept of market orientation: a mix of the marketing role, customer behaviour, strategic marketing and operational marketing. The course will equip students with the skills and competences required to analyse and solve marketing problems relating to both individual consumers and business - to - business customers. The problem - solving approach covers areas such as customer roles, customer attitudes and behaviours; segmentation; marketing research methods;	3	2/2			

marketing communications; and d	stribution.



UH63	UH6342001-MARKETING							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	BG20103	Consumer Behaviour	Consumer behavior is a fascinating field that studies individuals, groups and organizations and the processes they use to select, secure and dispose of products, services, experiences or ideas. Consumer behavior blends psychology, sociology, social anthropology, economics and marketing so as to understand the decision-making processes of buyers. This course examines a wide range of consumer behavior concepts, models and emerging trends that are essential to the marketing success of today's commercial firms, non-profit organizations and government institutions alike.	3	1/2			
2	BG31903	Integrated Marketing Communications	Provide an overview of Integrated Marketing Communications (IMC) concepts and applications of integrating the elements of advertising, sales promotion, public relations, direct marketing and other essentials of the marketing mix to support the overall marketing strategy. IMC wraps communications around customers and helps them move through the various stages of the buying process. The organisation simultaneously consolidates its image, develops a dialogue and nurtures its relationship with customers. This 'Relationship Marketing' cements a bond of loyalty with customers which can protect them from the inevitable onslaught of competition. The ability to keep a customer for life is a powerful competitive advantage.	3	2/2			

UH68	UH6812001-TOURISM MANAGEMENT							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	BY10103	Cultural and Heritage in Tourism	The course examines the importance of cultural and heritage tourism and its complex interpretation in the tourism industry's most dynamically developing branch of knowledge. This course introduces the relationship between tourism, culture and heritage and the significant outcome when a meeting occurs between tourist and the host. Students are exposed to a multifaceted segment of the 'tourism industry', and learn the roles, positions and diversified needs of cultural and heritage tourism.	3	3/1			
2	BY33203	Sustainable Destination Management	The course introduces the students to sustainable destination management by drawing from both the theoretical and applied dimensions from the concepts and principles of sustainability, sustainable development and its relation to tourism destination management; and also from the destination development / DMO (destination marketing organisation) perspectives. Specifically, it takes a destination management approach to tourism and focuses on the planning and management of sustainable destinations. Students identify, discuss and analyse how the principles of sustainability are integrated into a variety of destinations to gain global competitiveness and related issues and problems associated with sustainable destination management. Important topics covered include: the roles and functions of governments and destination management organisations (DMOs); planning and product development; policy and regulation; positioning and branding; resources, networks and partnerships; risk management and disaster recovery and the implementation sustainable tourism	3	3/1			



UH63	UH6314001-PLANNING AND DEVELOPMENT ECONOMICS								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER				
1	BC20203	Fiscal Economics	This course firstly introduces the role of government in economy/public finance in terms of government expenditure and taxation/fiscal policy, and the basic concepts of public finance such as, taxes, government expenditures, subsidies, and inefficiency. An overview of the fiscal policy in Malaysia is provided. The rest of the course contents cover the following: externalities and environment, public goods and political economy, cost-benefit analysis, social security, health insurance, tax incidence and inefficiency, taxes, state and local public finance, education, low income assistance, and lastly, government borrowing.	3	2/1				
2	BC33503	Youth & Political Economy	This course focuses on various aspects of youth including the definition of youth and youth organisations, valuation, and evaluation of its contribution from financial perspective, political economy aspects. Several domains are examined to understand youth performance in each domain and that related to the valuation and evaluation of political economy. These domains include self-development, social relationship, identity, self-potential, leisure time, health, media and ICT and deviant behavior. This course also examines the participation of young people in national agenda particularly distinguishing the decision-making process and decision-making. This course also investigates the strength, weaknesses, opportunities, and threats engaging the population of youth. Its analysis offers some guidance to the way forward of young people or youth in Malaysian politics and economy.	3	3/1				

UH6314002-FINANCIAL ECONOMICS							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	BF20103	Financial Economics I	This course aims to give a foundation of financial economics by introducing its related concepts and theories and show how to apply the knowledge to current economic issues and problems. This course provides basic knowledge regarding interest rates, the relation between bond and loanable fund markets, portfolio choice, asset valuation, selected financial markets, monetary policy, and international financial system.	3	Year 2 Sem 1/2		
2	BF30703	Islamic Financial Economics	This course is the basic introductory to Islamic economics and financial economics especially in the area of finance and banking. It discusses the concept and application in Islamic finance and gives exposure to the students on how Islamic teaching perceives the financial systems and its functions. Among the discussed concepts and issues in this course are scarcity and resources, surplus and deficit sectors, riba, hibah, Trade, al-bay', BBA (Al-Bay Bithaman Al- ajil), Mudharabah, Musyarakah, Islamic capital and bond market, and also Islamic banking and finance products such as al-Tijarah, al-Murabahah, al-Salam, al-wadiah, al-istisna', ar-Rahn, al-Hiwalah, al- wakalah, al-kafalah, takaful dan al-ijarah. This course also discusses the role of Baitul Mal and zakat.	3	Year 3 Sem 1/2		



UH63	UH6314003-HUMAN RESOURCE ECONOMICS						
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	BH30703	International Human Resource Economics	This course introduces the basic theories of international human resource economics. The course is divided into three parts namely the globalisation of the labour market, economics of migration and global unemployment. The features of globalisation including the trend, characteristics and immigration policy will be introduced in this course. The key determinants of migration will be discussed. The effects of immigration to both the host and home country will also be examined. Additionally, the issues in labour market integration will also be explored. Finally, the issues of international human resource economics will be examined by analysing case studies from various countries including Asia, Europe, and Latin America.	3	1/2		
2	BH31003	Women and Labour Market	This course provides introductory materials for the economic status of women as compared to men in the labour market. The syllabus is devoted to applications and policy and less formal economic theory and specifically concerned with the economics status of women. Most chapters include case studies (from the United States of America) illustrating how the gender differs in labour market outcomes from an economics perspective. The chapters introduce students to the economist's view of the labour force participation of women, gender wage gap, non-market work, trends in marriage, divorce and overall fertility, labour market discrimination legislations. The economic status ant labour force participation of women in both the developed and developing countries will also be discussed.	3	1/2		

FACL	FACULTY CORE (FOR ALL PROGRAMS)						
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	BT21303	Organisational Behavior	This course will enrich students' knowledge about the concepts and issues of human behaviours in organisations. Organisational behaviour is linked to human behaviour, at individual, group and organisational level. The main goal of the course is to enable students as future managers to understand organisational behaviour as a mechanism to improve productivity, motivation, satisfaction, and performance besides to reduce negative work behaviours.	3	2/1		
2	BT22303	Human Resource Management	The course is designed primarily for undergraduate courses. It is for students being exposed to HRM for the first time. The course is designed to get students to be in touch with the field with numerous examples and company material and will reinforce the notion that, by definition, all managers are necessarily involved with HR. The course provides helpful insights for those students who aspire to management positions. The course is divided into six major parts: Part 1: Overview of HRM, Part 2: staffing, Part 3: performance management and training, Part 4: compensation, Part 5: labour & employee relations, safety and health, and Part 6: operating in a global environment.	3	1/2		



#### SENARAI KURSUS YANG DITAWARKAN BAGI PROGRAM E-MOBILITI INBOUND

#### FAKULTI PENGAJIAN ISLAM FACULTY OF ISLAMIC STUDIES

\* Program ini akan dikendalikan sepenuhnya dalam Bahasa Melayu. *This program will be fully taught in Malay language.* 

UH6221001 – PENGAJIAN ISLAM ISLAMIC STUDIES								
NO.	KOD KURSUS	NAMA KURSUS	DESKRIPSI KURSUS	JAM KREDIT	TAHUN/ SEMESTER			
1	AI10603	TAJWID DAN HAFAZAN	Lebih mengenai asas-asas ilmu Tajweed, makhraj (artikulasi) watak dan sifat huruf, hukum bacaan seperti nun Sakinah dan tanwin, mendasarkan mim yang mushaddad, hukum mim Sakinah, Idgham mutamāthilayn, mutaqāribayn, mutajānisayn, Hukum Lām dan rā ', Hukum Mād, bacaan bacaan oleh Hafs dan Waqaf dan Ibtida' '. Di samping itu, pelajar diminta untuk menghafal beberapa pilihan ayat.	3	1/1			
2	AI40703	ISU KONTEMPORARI ISLAM	-	2	1/1			
3	AI40503	FIQH PERBANDINGAN	-	2	1/1			



## FACULTY OF SUSTAINABLE AGRICULTURE (SANDAKAN CAMPUS)

UH66	JH6621001-CROP PRODUCTION					
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	*YEAR/ SEMESTER	
1.	RC10303	Principles of Sustainable Agriculture	This course introduces students to the principle of sustainable agriculture, which emphasizes crop and livestock production and food systems that are profitable, environmentally friendly, energy efficient, and can improve the quality of life for farmers and the public. Students will learn how conventional agricultural practices impact natural ecosystem services and how to incorporate critical biodiversity functions for sustainable agriculture. Students will also be introduced to Good Agricultural Practices (GAP), which is used to certify farms that practice sustainable agriculture. GAP is an agricultural certification system that establishes procedures (and associated documentation) that must be followed to produce safe and wholesome agricultural products (food and non-food) for consumers or further processing using sustainable practices.	3	Year 1, Sem. 1	
2.	RC10503	Plant Physiology	Plant physiology is an examination of plant function ranging in complexity from individual cells up to the whole plant. As relatively immobile organisms, plants must adapt to the prevailing environment and consequently have unique mechanisms to deal with non-ideal growing conditions. Both normal growth and development as well as how the plant responds and adapts to adverse conditions are major themes in plant physiology research. This course will focus on the major physiological processes occurring in plants grown under ideal conditions as well touch on the physiology of stress-adaptation.	3	Year 1, Sem. 1	
3.	RC10703	Agricultural Economic	This course introduces beginning students in agriculture with an introduction and basic principles of agricultural economics. The course provides an understanding of the basic concepts of microeconomics; macroeconomics; production economics; supply and demand; natural resource and environmental economics; food and fiber industry; marketing of agricultural products; international trade and agricultural policy. Moreover, the course also learns how simple economic principle and a market- based economy may improve the decision making.	3	Year 1, Sem. 1	
4.	RC20703	Agricultural Engineering	Students will learn a wide range of fundamental engineering concepts, principles and applications in agriculture with a strong emphasis on problem solving. Aspects of mechanics, hydraulics, electrical and electronics will be covered. The principles and applications of the internal combustion engine, electric motor and pump as important components of the agricultural machinery will be discussed.	3	Year 2, Sem. 1	

5.	RC20903	Plant Breeding	The course allows students to develop skills in both the theoretical and practical aspects of plant breeding. This course discusses plant breeding: principle and basic topics, genetic basis of crop improvement, general plant breeding methods, special plant breeding methods, innovative methods of breeding, variety release and seed production, hybrid breeding, plant biotechnology, genetic engineering, molecular markers and marker-assisted selection and intellectual property rights. The role of plant breeding in agriculture will be shown in related topics. The course commences with a review of the historical importance of plant breeding. This is followed by a review of conventional strategies for plant breeding and the application of recent advances in plant biotechnology to enhance the efficiency of selection with major breeding programs. The course concludes with a review of plant genetic engineering and its major applications to date.	3	Year 2, Sem. 1
6.	RC21303	Food Crops	The course will begin with a plant morphology description. The importance, ecology, and physiology of common legume, root and tuber, and cereal crops in Malaysia will be emphasized. The student will also learn to carry out good agronomic practices for the sustainable production of food crops.	3	Year 2, Sem. 1
7.	RC00203	Mushroom Production	This course introduces the scope of edible and non- edible mushrooms. Some general edible mushroom species include Calacybe indica, Volvariella Volvacea, Pleurotus sp., Agaricus bisporus, and Shiitake. Practical skills to be learned involve isolation and preparations of fungal culture, mushroom seed, spawning media, and mother culture stock. Also, the differences between sterilization and pasteurization of raw materials will be discussed. Emphasis will be focused on hands on mushroom cultivation and management of biotic and abiotic factors that affecting the mushroom development in the growing room.	3	Year 3, Sem. 1
8.	RC00403	Agricultural Entomology	This course will familiarize the students with skills and knowledge on agricultural entomology. Learning of insect life cycle, ecology, reproductive biology and morphological structure will provide training to students on characteristics of common tropical agricultural insects (pests/ beneficial insects) in Malaysia. Classification and identification using taxonomic guide keys enable students to identify insects up to the level of order /species.	3	Year 3, Sem. 1

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9.	RC30903	Experimental Design and Analysis	Students will learn concepts, principles and methods or steps in setting up an agricultural experiment. Students will also learn statistical analysis based on the experimental design used. The experimental designs include Completely Randomized, Randomized Complete Block, Latin Square and Split Plot Designs, as well as factorial experiments. Suitable ways and methods of analysing data for these experimental designs will also be taught.	3	Year 3, Sem. 1
10.	RC31103	Agricultural Biotechnology	We need more food to feed 10 billion people by 2050. Sustainable food production using conventional methods, however, is challenging under limited resources and unpredictable climate. This course introduces the application of biotechnology in addressing the challenges in contemporary agriculture. The course covers the basic knowledge of recombinant DNA technology, gene editing, and other related biotechnological tools. Furthermore, their applications in generating crops and livestock with enhanced traits will also be covered. The course also discusses the benefits, risks, and relevant issues using genetically modified organisms in agriculture.	3	Year 3, Sem. 1
11.	RC31303	Plantation Crops	This course is about the production of successful plantation crops that are common in Malaysia. The course will begin with a description of plant morphology. Next, students will learn to carry out a sustainable crop management strategy and apply good agronomic practices associated with that particular plantation crop.	3	Year 3, Sem. 1
12.	RC31503	Fruit Crops	This course covers the science, culture, and management of tree and small fruit crop production practices and technologies.	3	Year 3, Sem. 1

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14.	RC31702	Scientific Writing and Communication	This course provides the opportunity for the students to acquire the necessary knowledge and skills to write and disseminate scientific ideas and information clearly, effectively and efficiently. The topics covered include important contents of a scientific article, writing and presenting research proposal, research findings, research article, poster and thesis or dissertation in accordance with the specified format. Basic knowledge and skills on using computers for literature search, writing and presenting information will also be covered.	2	Year 3, Sem. 1
15.	RC00503	Controlled Environment Crop Production	Students will learn about the principles, methods, and techniques of crop production under various controlled environment structures (CES). The measurements and control of environmental factors affecting plant growth and productivity under CES will be studied with the aid of different environmental sensors and data loggers. A cloud server will enable data processing and apply a control action by remotely accessing the system when it is connected using the Internet of Things (IoT). IoT sensors in the CES provide information on the light levels, pressure, humidity, and temperature, and can control the actuators automatically to open a window, turn on lights, control irrigation system, turn on a mister or turn on a fan, all controlled through a Wi-Fi signal.	3	Year 4, Sem. 1
16.	RC01703	Plant Molecular Biology	This course provides the understanding of unique and vital processes in plants' lives, beginning from seedlings' emergence until reproduction and their response to biotic and abiotic factors at the molecular level. The course also discusses the structure, function, and regulation of molecular components involved in plants' genetic machinery. Some essential molecular biology techniques will be introduced as well.	3	Year 4, Sem. 1
17.	RC02103	Current Issues and Developments in Agriculture	Issues and Current Development in Agriculture is a crucial course to develop full understanding on the development mechanism affecting the agricultural industry. This course enables students from the Faculty of Sustainable Agriculture, Universiti Malaysia Sabah to obtain latest knowledge pertaining to the industry from a global perspective. Students are expected to be mentally prepared in facing the challenges to promote and accelerate the growth of the agriculture sector.	3	Year 4, Sem. 1
18.	RC02203	Crop Physiology	This is an advanced level course which recognized that physiological processes play determinant roles in controlling plant growth and crop yields. This course will emphasize the application of physiology and agronomy in crop production and environmental effects on crop growth, and biological and economic yield.	3	Year 4, Sem. 1

\*Note: Choose courses within the same program and year.



UH66	21002-HOR	IICULTURE & LANDSCAPII		0	
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	*YEAR/ SEMESTER
1.	RC10102	Plant Nutrition	An introductory course concerning a fundamental understanding of soil fertility, plant nutrition and soil nutrient management. This will include the roles and functions of nutrients to plants, deficiency & toxicity symptoms, nutrient availability, and uptake by plants from the environment (aerial, soil and soil-less). Types of chemical/inorganic and organic fertilizers, an appreciation of the importance of good fertilizer management in various soils and plant production systems and how soil pH influences nutrient uptake will be discussed. Students will be able to calculate fertilizer application amounts for any given crop based on fertilizer recommendation rates.	2	Year 1, Sem. 1
2.	RT10303	Chemistry for Agriculture	This is an introductory course specifically on topics needed for an understanding of the basic chemistry of agriculture. Topics covered will include basic atomic, physical and organic chemistry, mole concept, solutions, states of matter, acids -bases and salts, chemical reactions, water and air chemistry, surface and colloidal chemistry, and agrochemicals (fertilizers and pesticides). Students will be made aware of the use of isotopes and nuclear techniques in agriculture.	3	Year 1, Sem. 1
3.	RT10402	Introduction to Agriculture	The course introduces students to the importance of agriculture to mankind, history and development of agriculture, current issues and challenges in agriculture ranging from environment, food security and needs, food safety, to biotechnology and genetically modified organisms. Shifts in Malaysian agriculture policies, objectives and strategies over several decades since e independence will be highlighted. Sustainable agriculture and management practices which are widely accepted and adopted by farmers and nations around the world will be introduced. Prospects and opportunities in the agriculture sector will also be discussed.	2	Year 1, Sem. 1
4.	RT10503	Agricultural Ecology	This course will introduce students to the biotic and abiotic factors in the natural environment and principles of ecology implemented in agriculture systems. The important elements in agricultural ecology include interactions between weather, soils, energy, water, plants and biological populations. Application of the concepts and knowledge in agricultural ecology enables students to practice sustainable agriculture.	3	Year 1, Sem. 1

					UMS
5.	RH20103	Plant Breeding	The course allows students to develop skills in both the theoretical and practical aspects of plant breeding. This course discusses plant breeding: principle and basic topics, genetic basis of crop improvement, general plant breeding methods, special plant breeding methods, innovative methods of breeding, variety release and seed production, hybrid breeding, plant biotechnology, genetic engineering, molecular markers and marker-assisted selection and intellectual property rights. The role of plant breeding in agriculture will be shown in related topics. The course commences with a review of the historical importance of plant breeding. This is followed by a review of conventional strategies for plant breeding and the application of recent advances in plant biotechnology to enhance the efficiency of selection with major breeding programs. The course concludes with a review of plant genetic engineering and its major applications to date.	3	Year 2, Sem. 1
6.	RH20303	Plant Propagation and Nursery Management	This course introduces the basic principles and techniques of plant propagations by sexual (seed) and asexual (vegetative) including plant tissue culture. In this course, the nursery management and maintenance aspects will be emphasized.	3	Year 2, Sem. 1
7.	RT20101	Field Work	This is an on and off campus practical training course to familiarise students with basic tools, skills and knowledge in crop and livestock farming, and landscaping, nursery and field planting techniques will be introduced. Cultural practices such as nursery bed preparation, planting, potting, preparation of soil or planting medium, weeding, fertilizing, watering, pruning, thinning, and composting as well as the handling and care of livestock in pen houses, free range and paddocks will be done.	1	Year 2, Sem. 1
8.	RT20102	Organic Farming	This course introduces the principles of soil fertility, crop and livestock management by organic methods which contrast with conventional farming. Students will understand the role of organic agriculture in society in relation to environmental, social, and economic sustainability. This course will cover topics such as meeting crop nutrition needs using organic materials, on-farm compost production, the use of cover crops, organic methods of weed, pest and disease control, organic livestock production, organic certification, and the marketing of organic farm products.	2	Year 2, Sem. 1

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9.	RT20303	Agriculture Biotechnology	This course will introduce students to the application of recombinant DNA technology to agriculture. Methods of introducing foreign DNA into plant and animal cells and generation of stable transformed plants and animals will be studied. Students consider specific examples of the use of transgenic plants and animals which are resistant to pathogens and tolerant to specific herbicides. Since recombinant agricultural products are released into the environment or consumed as foods, students will be familiarised with environmental safety issues.	3	Year 2, Sem. 1
10.	RC30103	Farm Mechanization	This course introduces the principles, design and operation of common types of farm machinery and mechanisms; familiarizes students with agricultural mechanization policy and strategy and its implications on agricultural development; teaches students financial costing and accounting of agricultural machinery, and analyses factors that affect economic operation for effective management decisions.	3	Year 3, Sem. 1
11.	RC30703	Plant Pathology	The course will begin with a brief introduction to plant pathology and its importance. Biotic agents (bacteria, fungi, viruses, nematodes, etc.) and some abiotic agents that cause plant diseases will be highlighted. The disease cycle, the physiological response of plants to pathogen attack, the role of genetics in disease infection, the mechanism of infection and the mechanism of defence against plant pathogens will be detailed. Disease symptoms and control methods (chemical, cultural, biotechnology) will also be highlighted. The concept of plant disease diagnostic procedures in the field and laboratory is also taught in practical sessions.	3	Year 3, Sem. 1
12.	RH30302	Olericulture	This course provides knowledge on principles and practices in the production and management of highland and lowland vegetable crops. It covers species in several important families such as leguminosae, solanaceae, cucurbitaceae, cruciferae, malvaceae and liliaceae. Management factors to be discussed include use of organic and inorganic fertilizers, pest and disease control, weed control and fertigation. The use of hydroponics and net-houses for vegetable production will also be discussed.	2	Year 3, Sem. 1
13.	RH30503	Horticulture Landscape	This course introduces the knowledge in landscape design which includes basic elements of landscape, spatial design and the application of sustainable landscape practices. It also explores sustainability issues, historical, psychological, cultural and art in the natural and built environment.	3	Year 3, Sem. 1

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14.	RH33302	Computer-aided Design for Landscape Applications	This course introduces students to the use of digital drawing and editing software, focusing on landscape and agricultural applications. Students will utilise SketchUp, Vray, and Layout to create 2D drawings, 3D models, and technical drawings following industry practices. The course also covers the integration of Adobe Photoshop for designing digital presentations, incorporating images, graphics, visualisations, and portfolios. By the end, students will gain proficiency in digital design tools, enabling communication of ideas in the landscape and agricultural design field.	2	Year 3, Sem. 1
15.	RT30202	Scientific Writing and Communications	This course provides students the opportunity to acquire the necessary knowledge and skills in scientific writing and communication, such as, writing a research proposal, a dissertation, or a journal article in accordance with the specified format.	2	Year 3, Sem. 1
16.	RT30302	Experimental Design and Analysis	Students will learn concepts, principles, and methods/steps in setting up an agricultural experiment. Students will also learn statistical analysis based on the experimental design used. The experimental designs included are Completely Randomized, Randomized Complete Block, Latin Square and Split Plot Designs as well as factorial experiments. Suitable ways and methods of analysing data for these experimental designs will also be taught.	2	Year 3, Sem. 1
17.	RH40202	Garden Design and Management	The course exposes the students to the sustainable planning and management of a garden or a park. Students are challenged to produce a Management Plan based on practices and policies from around the world; as implemented by national parks and botanical gardens locally and globally.	2	Year 4, Sem. 1
18.	RH40302	Post-harvest Technology	The course will highlight topics related to the causes, principles and practices that result in postharvest losses and appropriate methods to reduce these losses. The biophysical and biochemical changes in agricultural production and factors that influence the quality of produce during storage will be discussed.	2	Year 4, Sem. 1

19.	RT40103	Precision Farming	This course introduces the concepts, technologies and applications involved in farm variability management. Precision farming entails the theory and use of some high-technology equipment for assessing field conditions and applying agricultural inputs precisely. Students will also be exposed to precision technologies in livestock production such as in feeding, reproduction and health management. Topics covered include measuring parameters through various sampling procedures, and mapping of variability of nutrients, crop yield and other parameters with use of geo-statistics, spatial patterns, GNSS, GPS, DGPS, GIS, remote sensing, proximal sensing and aerial photography for soil and crop mapping. Students will participate in some hands-on experience through practical use of ICT with enabling hardware and software as tools in precision farming.	3	Year 4, Sem. 1
20.	RT40303	Agriculture Economics and Agribusiness	This course discusses the basic principles of agricultural economics to assist the students to make decision how to choose the combination of inputs and outputs that will generate the most profit to their businesses. This course also will teach the students about the principles of agribusiness, as explaining how to start-up, running and managing their own business or firms mainly in the concept of operations, marketing and financial management. Additionally, the students will be taught and guided to prepare a business plan. It also includes chapters on the basic principles of economics, marketing, management and investment analysis in agriculture	3	Year 4, Sem. 1
21.	RT40402	Issue and Current Development in Agriculture	This is a seminar course on current global, regional or local issues and development in agriculture which will be presented by policy makers, representatives of Government implementing agencies, industries, financial institutions as well as from experts, renowned researchers and academics.	2	Year 4, Sem. 1

\*Note: Choose courses within the same program and year.



UH66	UH6622001-LIVESTOCK PRODUCTION					
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	*YEAR/ SEMESTER	
1.	RL10503	Principle of Sustainable Livestock Production	The course will explore a range of different livestock production systems and the opportunities and challenges of implementing sustainable practices. This course provides an introductory foundation to explore and draw connections between key sustainability issues related to livestock production systems, a wider range of interdisciplinary topics including agro- ecology, natural resource management, biodiversity, land use, livelihoods, nutrition, animal food products, and policy.	3	Year 1, Sem. 1	
2.	RL10703	Biochemistry for Livestock Production	Biochemistry focuses on the chemical processes within and related to living organisms, that brings together biology and chemistry. This course study of different chemical reactions going on in the body of animal for life as how it is related to livestock production. Topics which will be covered are such as biological macromolecules made up, metabolic processes and function in living, health and diseases.	3	Year 1, Sem. 1	
3.	RL10903	Animal Physiology and Anatomy	To introduce students to the anatomy and physiology of farm animals. Students will become familiar with the concepts of function and body structure of major domestic species. Students will gain knowledge of basic animal anatomy through the comparative study of various animal skeletons, anatomical models, and systematic of chickens and ruminants.	3	Year 1, Sem. 1	
4.	RL20503	Animal Breeding and Genetics	This course introduces the basic principles of genetic and inheritance in animal. Discussion encompasses the concepts of gene and chromosome, mitosis and meiosis, Mendelian laws of inheritance, factors that contribute to modification of Mendelian patterns, molecular genetics (DNA structure, replication, gene expression and gene mutation) and population genetics. This course introduces students the principles of animal breeding and statistical basis of animal improvement, selection of breeding program, and transmission of characteristics. The genetic improvements of livestock by means of breeding systems, selection methods and performance testing will be discussed.	3	Year 2, Sem. 1	
5.	RL20703	Pasture and Fodder Production	This course introduces the production of forages including grasses, leguminous and non- leguminous plants and fodder as ruminant feed. Commonly sown forages and legumes in the country will be introduced while the establishment, growth, harvest, maintenance, renovation and succession will be describeb during lecture and practical session. The establishment of forages under cut-and-carry fodder system and pasture grazing system, as well as integration will be discussed. The conservation of excess forages or the maintaining of the quality of forages will also be included. Finally, the methods and analyses in determining the quality of forages will also be a	3	Year 2, Sem. 1	

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			part of this course.		
6.	RL20903	Poultry Production	This course introduces all aspects of poultry production practices including breeding, nutrition, management, housing, equipment, health and welfare. Students will be able to experience hands-on raising of commercial broiler, and layer chicken from day-old until the processing process. The introduction to the running system of the industry will also be introduced.	3	Year 2, Sem. 1
7.	RL21103	Small Ruminant Production	This course covers all aspects of small ruminant (sheep, goats and deer) husbandry practices, including breeding, nutrition, management, housing, equipment, health and welfare. Various breeds of sheep, goats and deer will be discussed. Emphasis will be given to ways of increasing the production of milk, meat and wool and the marketing of the products.	3	Year 2, Sem. 1
8.	RL01403	Meat and Dairy Sciences	This course encompasses the science in dairy and meat, as the main product of the large ruminant industry. The mechanism, aspects and factors which influence the quality of milk and meat will be describe hence giving students the knowledge and understanding in handling the products, and the production of utmost quality products. The milking technology, maintaining milk quality standard, slaughtering and meat quality will be discussed.	3	Year 3, Sem. 1
9.	RL30903	Experimental Design and Analysis	Students will learn concepts, principles and methods/steps in setting up an agricultural experiment, especially in livestock research field. Students will also learn statistical analysis based on the experimental design used. The experimental designs included are Completely Randomized, Randomized Complete Block, Latin Square and Split Plot Designs as well as factorial experiments. Suitable ways and methods of analyzing data for these experimental designs will also be taught.	3	Year 3, Sem. 1
10.	RL31102	Scientific Writing and Communication	This course provides students the opportunity to acquire the necessary knowledge and skills in scientific writing and communication. Students will be asked and taught the basis of writing a research proposal and the components within, the requirement of a complete dissertation, a journal article in accordance with the specified format, referencing from sources. Students will also be asked to enhance their scientific and science communication through the course.	2	Year 3, Sem. 1

11.	RL31503	Large Ruminant Production	This course includes important aspects of large ruminants, namely dairy, beef cattle, and buffalo general management from birth to adult, various breeds of dairy and beef cattle, selection and judging dairy and beef cattle. It will include breeding, nutrition and management, milking management, dairy herd health, dairy housing & equipment, marketing of milk, health management, beef cattle housing and equipment and marketing of products.	3	Year 3, Sem. 1
12.	RL00103	Broiler and Layer Production	This course covers more specifically the broiler and layer chicken, in producing fresh chicken meat and table eggs for consumers. The various production system, types of housing, breeds and line of chicken will be introduced and differentiated through the course. Emphasis is given on the important aspects of sustainable operation, and their practical application to successfully manage broiler and layer operations.	3	Year 4, Sem. 1
13.	RL00603	Breeded Chicken and Hatchery Management	This course will emphasize on the management of breeder chicken, both breeders of the broiler and layer chickens at the farm. Following that, the course also covers the hatchery management of the breeder chickens. Various topics will be covers such as breeds, nutrition, management, housing, health and welfare.	3	Year 4, Sem. 1
14.	RL01503	Swiflet Ranching	This course will introduce students to various aspects of swiftlet planning, which cover topics such as building design and infrastructure, swiftlet house management, swiftlet management, edible bird's nest processing and marketing. The development, prospects of this industry and legislation related to the swiftlet industry in the country will also be discussed.	3	Year 4, Sem. 1
15.	RL40903	Handling and Processing of Livestock Products	The objective of this course is to impart knowledge to students about handling and processing of livestock products such as meat, egg, milk and other products to preserve quality and shelf life. The topics include products collection, slaughtering, identification of standard cuts, carcass evaluation, structure, composition, preservation, processing, safety and hygiene. It will enlighten them about the importance of quality of the products. The students will be exposed to livestock industries which will help in knowledge enhancement related to their future careers.	3	Year 4, Sem. 1

\*Note: Choose courses within the same program and year.



#### FACULTY OF PSYCHOLOGY AND EDUCATION

UH6311001-INDUSTRIAL & ORGANIZATIONAL PSYCHOLOGY							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	PI20303	Personnel Psychology	Human resource costs have grown to be one of the largest costs for most organizations. It is of utmost importance to facilitate optimal performance of employees. To do so, one needs to match individual characteristics to tasks and organizational environment, and able to implement personnel psychology theories and practices in any organization. This course discusses issues in human resource development based on concepts and psychological theories.	3	2/1		

UH63	UH6311002-YOUTH & COMMUNITY DEVELOPMENT								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER				
1	PB20403	Cross Culture Psychology	This course introduces Cross-cultural Psychology as one of the sub-disciplines of psychology that emerged from the awareness of the limitation in studying human behaviours. In this course, aspects of methodology in cross-cultural research and generalisation of 'the mainstream psychology' are given emphasis	3	2/1				

UH63	UH6311003-COUNSELLING PSYCHOLOGY								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER				
1	PK10103	Principles and Philosophy of Counselling	This course will provide a comprehensive overview of counselling services which include the historical aspects, backgrounds, requirements, definitions, philosophies, principles, goals, models, processes, and approaches in counselling. This course also provides knowledge and emphasis on basic counselling skills, counselling relationships, types of counselling and client types. Issues in counselling such as ethics, counselor training, licensing, counselor effectiveness, research and evaluation are also been taught.	3	1/1				

UH63	UH6311004-CHILD & FAMILY PSYCHOLOGY								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER				
1	PA20303	Marriage and Family	This course will focus on family and marital institutions. Emphasis will be given to the selection of partners and dynamics of marriage and family life. Discussions will focus on family relationships and kinship. Issues related to marital and family institution, family law regulations from religious point of view, civil law and culture will be discussed. Future challenges on marriage and family institutions also are discussed.	3	2/1				
2	PA20503	Children in Troubled Family	This course exposes students with the knowledge about children in troubled families. The issues will be discussed in detail on why and how the issue exists. Students will also be exposed in practice as well as the theories involved. This course has been diverted from road leading to healthy development by such	3	2/1				

forces as child neglect, parental divorces separation, alcoholism, illness and death, and the impact these crisis have on individual child's development as it will depend on their perception of events, their individual personality characteristics, and the strength of their coping skills.



UH67	UH6762001-SOCIAL WORK							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	PT10103	Introduction to Social Work	This course discusses the basic understanding of social work namely social welfare, social policy, and social service. The discussion begins by identifying the ideologies of social welfare such as welfare values, welfare rights, the conception of social welfare, characteristics of social welfare, purpose and function of social welfare, the trend in social welfare and the responsibility of government and society towards social welfare. Further explanation on the scope of social work that includes understanding, assumptions, characteristics, purpose, the focus of intervention, function and roles in the practice of social work fields. Moreover, this course will discuss the development of social work, the criteria of a social work profession, theoretical framework, values and skills in social work. Lastly, this course also discusses the issues in social work practice such as in education, professional training and the future of social work in Malaysia.	3	1/1			

UH6813001-SPORT SCIENCE							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	PZ20303	Pengurusan Organisasi Sukan dan Sumber Manusia	Kursus ini menerangkan bagaimana organisasi sukan ditadbir urus. Kemahiran pengurusan dan ciri-ciri kepimpinan akan dibincangkan. Pelajar akan diajar dengan pengurusan strategik, objektif organisasi, analisis SWOT, dan isu semasa yang berkaitan dengan sukan dan pengurusan manusia. Pelajar akan dilatih untuk menganalisis dan menyelesaikan masalah yang dihadapi dalam bidang sukan dan pengurusan manusia.	3	2/1		
2	PZ30103	Pengurusan Pemasaran dan Penajaan Sukan	Pemasaran sukan adalah kerjaya yang berprestij dan mencabar. Kursus ini akan membincangkan tentang bidang pemasaran sukan dari perspektif strategik yang merangkumi rangka kerja pemasaran sukan, merancang keputusan pemilihan pasaran dan campuran pemasaran sukan. Salah satu aspek penting dalam pemasaran sukan ialah penajaan. Oleh itu kursus ini akan melibatkan penyertaan para pelajar tentang cara memahami dan mengamalkan program pengurusan penajaan apabila pelajar ingin menganjurkan sebarang acara sukan.	3	3/1		

\* Program ini akan dikendalikan sepenuhnya dalam Bahasa Melayu. *This program will be fully taught in Malay language.* 



UH61	145001-EDUC	CATION WITH TESL			
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER
1	TE10003	The Phonology of English	This course explains how English is pronounced in the accent normally chosen as the standard for people learning English spoken in England. This course presents this information in context of a general theory about speech sounds and how they are used in language. This is necessary for anyone who needs to understand the principles regulating the use of sounds in spoken English. Due to the confusing nature of English spelling it is particularly important to learn to think of English pronunciation in terms of phonemes rather than letters of the alphabet and transcribe them using the special symbols to represent them. The course then moves on to look at larger units of speech such as the syllable, and at aspects of speech such as stress and intonation. Students will then be exposed to skills needed to analyse and evaluate speech in English with greater understanding and depth and plan appropriate teaching and learning activities that can be carried out in the classroom.	3	1/1
2	TE10603	Literature in English	This course will enable student teachers to explore the creative aspect of language through literary works. The interplay between language and literature will provide an interesting and fun learning environment, whereby students will be given the opportunity to exhibit their understanding and appreciation of each literary genre either through creative writing or performance. This process serves as a springboard for them to improve their four basic language skills, which are reading, listening, writing and speaking.	3	1/1
3	TE20203	Introduction to Morphology	This course is based on the Generative Grammar Theory which allows students to apply their creativity in generating words in a language within the stipulated rules. This course aims to provide students with exposure and practice in the study of word derivation and formation, and their related components. The activities designed for the course will create students' awareness of the importance of knowing word derivations and formations, to help them improve their vocabulary and language proficiency.	3	1/1
4	TE10303	Teaching of Listening and Speaking	This course aims to build on the principles of communicative teaching with particular focus on oral language. The structure of spoken language is examined. The underlying theories of oral communication will be explored including communication theories, ritual and social events, schema theory, and speech acts. It will reinforce the concept of setting criteria for successful language learning. The teaching of listening and speaking is central to good language teaching since they are important for both classroom exposure and lifelong language needs. The topics covered include theoretical background to oral communication as well as the teaching methodology for listening and speaking.	3	2/1
5	TE10403	Teaching Reading Skills	This course will enable student teachers to understand the complex processes of reading, and of learning to read in a foreign language. Reading is an important skill in situations where exposure to a language may be limited. It is also a key academic skill. This course is structured into three parts. Part one presents the principles about reading, texts and teaching; part two looks more closely at some of the theoretical issues and how they affect reading teaching; and part three focuses on the importance of extensive reading, the choice of materials and the way courses and lessons are planned, taught and asses	3	2/1
6	TE20003	Approaches To Language Teaching	This course aims to introduce student-teachers to various English language teaching approaches. Among these approaches are the Grammar-Translation Method, the Direct Method, the Audio-Lingual Method and the	3	2/1

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			Communicative Language Teaching including Content- based, Task-based and Participatory Approaches. Contentious issues relating to the use of students' mother tongue, error corrections, teacher control, accuracy and fluency are also covered. The pedagogical principles and practices underlying language teaching approaches are considered. In addition, using samples of teaching materials, students are to be actively and critically engaged in discussion examining the benefits and limitations of the approaches considered.			(SABAH
7	TE20303	Materials Development	The aim of this course is to demonstrate the close inter- relationship between input materials, teaching and learning. This course covers the preparation and evaluation of EFL/ESL instructional materials. The class will develop critical skills for analyzing materials in accordance with theories of how second languages are learned, while also considering practical classroomissues and differences in the EFL/ESL environment. The course will utilize a practical hands-on approach to adapting current materials and developing new materials, including those, which target linguistic features in the context of meaningful learner interaction. The class will focus on materials for the different skills in current use in communicative models including (but not limited to) task- based approaches to teaching, issues in computer-assisted language learning, and content-based instruction. Current trend towards authentic materials will be a focal point in this course.	3	3/1	
8	TE30103	The Social Context of Language Learning	This course aims to provide students with foundation knowledge of language in society, variety of language, the use of language in various social contexts, and the factors influencing language use in society. Whenever possible, all these aspects will be discussed with reference to our multi- lingual and multicultural society. It is hoped that knowledge and awareness of these aspects will help our students to understand factors influencing their learners in learning a (new) language, to empathize with their learners and make effort to design their teaching to cater to the needs of these learners.	3	3/1	
9.	TE30503	Language testing and Assessment	This course introduces basic concepts in language testing, and emphasizes the distinction between teaching and testing. It aims to enable teachers to prepare in-school tests of various types for their learners, and to help them understand the relationship between teaching and assessment. The course introduces the basic concepts of language testing for teachers. Topics include: relationship between syllabus, learning and testing; different types of tests: diagnostic, achievement, proficiency; formative vs summative testing; norm-referenced testing and criterion-referenced testing; issues of reliability and validity; testing the four language skills and subskills; constructing tests; scoring of tests; interpreting test results; and alternative modes of evaluating learners without testing	3	3/1	-
10.	TE40003	Comparative Literature	This course examines the state of comparative literature world-wide in the 1990s. In the past twenty years a range of new developments in critical theory have changed patterns of reading and approaches to literature: gender based criticism, deconstruction and orientalism have all had a profound impact on work in comparative literature. This course introduces some of those approaches through a series of case studies, and asks questions not only about the current state of comparative literature as a discipline, but also about its future. Since its beginnings in the nineteenth century, comparative literature has been closely associated with the emergence of national cultures, and its present expansion in many parts of the world indicate that this process is again underway, after a period of narrowly Eurocentric research in the field.	3	4/1	



UH61	UH6145003-EDUCATION WITH SCIENCE							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	TM20003	History of Mathematics	An overview development in mathematics from the prehistoric era, civilization era of Greek, Babylon, Egypt, Hindu, China, Islam and Europe. Various disciplines and philosophy in mathematics will be studied with attention given on the historical aspect of every mathematical topic such as numeral systems, symbol, algebra, geometry, trigonometry, calculus, and statistics. Emphasis is also given on the famous mathematicians and their contributions.	3	<mark>1/1</mark>			

UH6145002-EARLY CHILDHOOD & EDUCATION							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	TD10203	Growth and Development of Children	Theories and research findings in the physical, cognitive, language, social, emotional and intellectual domains of growth and development of young children are the focus of this course. Emphasis is placed on the role and responsibilities of family and child care specialist/teacher in creating high quality supportive environments.	3	1/1		
2	TD30203	Digital Innovationin Teaching and Learning of Children	Students will be taught how to integrate 21st century skills and Industry Revolution (IR) 4.0/Education 4.0 technology in the learning environment of early childhood settings. The course will emphasize on the practice of student-based learning incorporating various online learning technologies in the curriculum for specific subject/learning areas, the generation of ideas in developing innovation project for children and the recording of their personal learning experiences via blog/forum. Students will be engaged in materials development incorporating the use of various innovative learning technologies in teaching and learning. From the materials developed, students will used them for micro teaching to get the benefits of the materials.	3	4/1		
3	TD40303	Children's Drama and Theater	This course covers the definitions and concepts of drama and children's theater. Emphasis is placed on the forms and teachniques that are associated with children's drama and theater. This course focuses on the application and impact of creative drama activities as a tool for teaching in early childhood education. Students are also required to apply elements of children's theatre in the script.	3	3/1		
4	TD10103	Foundation of Early Childhood Education	This course enables students to discuss the importance of historical information and theories in the field of early childhood education. Students will identify appropriate practice which focuses on development, individual strengths, interests and needs based on cultural contexts. Students are also exposed to curriculum, environment, policy, trends and issues related to early childhood education.	3	1/1		

UH61	UH6145006-EDUCATION WITH HONORS (HISTORY)								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER				
1	TH10103	Principles, Methods and Philosophy of History	This course aims to introduce students to the science of history as an academic discipline. Through this course, students will be exposed to important aspects of the discipline of history such as methods, approaches, theories, concepts and philosophies of history. Students are also given exposure to historical	3	1/1				

thinking such as understanding chronology, exploring,	
facts. Such knowledge can help students to build	
unbiased research and historical writing skills. The	
course also aims to create awareness of the	
resources and role in the historiography of the Malay	



## FACULTY OF TROPICAL FORESTRY

UH6	UH6623001 (HG19) PERHUTANAN TROPIKA ANTARABANGSA							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1.	FS20303	MANAGEMENT AND CONSERVATION OF BIODIVERSITY	This course will expose students on the importance of biodiversity and tropical forest towards the environment and the influence of humans in biodiversity destruction. Issues on biodiversity threats which include endangered species and problems faced in terrestrial and aquatic ecosystems will be discussed. Emphasis will be given towards biodiversity assessment, design planning of protected areas and management of protected areas in an effort to conserve biodiversity at the species, population and community level. The role of Environmental Impact Assessment (EIA) in the management of protected areas and biodiversity, efforts in conserving biodiversity at the government and international level, as well as issues pertaining conservation and future challenges will also be discussed.	03	2/1			
2.	FS30303	INTERNATIONAL AND REGIONAL FORESTRY	Forestry issues at the global level are crucial and becoming prominent in line with the globalisation development. Various international institutions are directly or indirectly involved and participate in various initiatives and collaborations related to forestry at the global level. Issues at the global level and the role of international regimes greatly influence agreement, policy implementation and management at international, regional, national and local forest level. This course will also introduce students to a comprehensive understanding of the state of forest resources in ASEAN countries that will focus on productive forest management in a broader context on political, ecological, economic and social issues. In addition, national and international forest resource conservation programs and projects will also be discussed. Topics on international initiatives in forestry and the country's involvement and stance in these initiatives will also be discussed.	03	3/1			
3.	FS30503	FOREST ENGINEERING	This course introduces students to the design, construction and maintenance of forest roads, bridges and culverts based on engineering principles. Key topics to be discussed include soil mechanics, slope stability, drainage and the engineering properties of retaining walls. The course will also cover topics that allow students to identify and make the right selection of road machines based on technical specifications, comparison of advantages and costs. This	03	3/1			

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			course is essential to achieve sustainable forest management in terms of infrastructure development, forest stability and interaction with nature. The construction of facilities such as forest roads, drainage and bridges is very important to ensure that forest production can be delivered to the factory without delay.		
4.	FS40302	SEMINAR: SPECIAL TOPICS	This course will expose students towards current issues in sustainable forest management which includes international institutions, international agreements, forest operations, forest industries, biodiversity, forest destruction, potential effects of natural environment disasters on soil, water, climate, genetic richness and uncontrolled economic resources from forested areas, forest community and forestry education. This course offers chances for students to work on interesting topics in forest management and present the findings for class discussions.	02	4/1
5.	FS40103	COMMUNITY FORESTRY AND FOREST EXTENSION	Community forestry refers to any situation involving rural communities involved in the planning and implementation of the use of forest resources on community land, state- owned land or private land. This activity is based on the socio-economic needs, skills and knowledge that are integrated into the overall lifestyle system of the community with the objective of improving the basic life and balance of the community. This course will reveal the importance of community forestry in the context of rural development, introduce the differentiating characteristics of community forestry applied in Southeast Asia, and also explain the role of forestry development.	03	4/1

UH68	UH6852001 (HG20) TAMAN ALAM SEMULAJADI & REKREASI							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	FP40702	ECOLOGY AND LANDSCAPE MANAGEMENT	This course provides students with an introduction to the discipline of landscape ecology. The course focus on the interplay between spatial patterns and processes that specifically characterize changes through time.	2	4/1			
2	FP30703	ENVIRONMENTAL SERVICE EVALUATION	This course enables students to learn and apply the basic concept of environmental valuation. Natural environment provides human with resources and commodities.	3	3/1			
3	FP40502	RESORT MANAGEMENT AND HUMAN RESOURCE	Resort management and human resource is one of the major elements to ensure sustainability of the resort industry. This course will focus on key topics in the planning and management, including development, maintenance and operations, such as budgeting, pricing and revenue management, front desk operations, marketing, public relations, guest activities, event management and direction of the resorts in the context of current environmental changes in the management of the resort, as well as food & beverage service management. This course will also focus on the current issues in resort management and human resource and explore the various levels of management, but emphasis is given to supervisors and middle management level. This particular section also assesses the strategic approach in human resource management (HRM), and outlines the strategic thinking in the method of	2	4/1			

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			producing sustainable competitive advantage through human resources. The main topics include health and workplace safety, employee relations, selection and recruitment, development and training, human resource planning and human resource management system		
4	FX30303	CLIMATE AND ENVIRONMENTAL ISSUES	This course discusses topics such as the climate change phenomenon and its impact based on the current scenario. In the beginning of the course, students will be introduced to what is weather, climate and methods in meteorological data monitoring and data interpretation. Greenhouse phenomenon, desertification, policy and climate change framework and REDD mechanism will also be discussed	3	3/1
5	FP20103	PARK PLANNING AND MANAGEMENT II	This course is a continuation of Park Planning and Management I. This course teaches approaches in park planning and management. Components and preparation of the park management plan will be discussed. Emphasis is given on zoning in sustainable park management. Recreation resource inventory, trail planning and visitor management are important topics in this course. Issues related to sustainability will also be given attention.	3	2/1
6.	FC10303	DENDROLOGY	This course will introduce students to the basics of dendrology through ICBN (International Code of Botanical Nomenclature) and herbarium management. In this course, students will learn plant identification methods using morphological features such as leaves, twigs and reproductive parts then classify according to the plant taxonomic system. This learning will be done through training in the herbarium and field using "check-lists" and key taxonomy of tropical plants. In the field students will learn the main characteristics of dipterocarp and non- dipterocarp groups. This course will also cover aspects of world vegetation in terms of dendrology.	03	1/1

UH65	UH6543001 (HY11) TEKNOLOGI DAN INDUSTRI KAYU							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	FK10103	INTRODUCTION TO MAIN FOREST PRODUCTS	This course provides basic knowledge of forest products that have economic importance to the country. Students will be introduced and explained about the wood products such as chipboard, medium density fiberboard, oriented strand board, cement- bonded particleboard, molded/extruded/flat-pressed products, pulp and paper and other composite products. Products from non-timber forest such as bamboo, rattan and medicinal herbs are also introduced. This course also emphasizes the characteristics of products and manufacturing processes involved in the production of wood products.	3	1/1			
2	FK20403	ADHESIVE AND COATING	The course discusses features of adhesive and coating with reviews on the historical development of adhesive, describes the various categories of adhesive, highlights the theories or mechanisms of adhesion, explores the testing of adhesive joints, as well as discussion on the applications of adhesive and coating in wood- based industry.	3	2/2			

				Q	
3	FK21003	WOOD MACHINING	Wood processing covers the use of wood as raw material to be processed into sawn time, finger joints, laminated wood, mouldings, door frames, doors and other solid wood products. In wood processing, calculation techniques of timber volume, wood volume, and wood machining techniques are explained. It also discusses machine utilisation and maintenance, and the equipment used in wood processing. This course also emphasizes the factors to be considered in the processing that are characteristics of wood and wood-processing technology. This course provides technical skills to the students about the techniques of machining and wood processing, besides the techniques of using and maintaining the machine and equipment. Visits to the wood processing factories will also be conducted as an exposure to the students.	3	2/2
4	FK31103	FURNITURE DESIGN AND MANUFACTURING	This course introduces students to technical drawing and wooden furniture design and manufacturing techniques. This course describes the preparation of technical drawings for wooden furniture design using AUTOCAD software and manually. Description of the furniture design technique in detail include furniture specification, calculation, selection of the wood, the type of furniture design, the types of joints and quantitative aspects. In quantitative, information including furniture design and the costs involved. It also discusses the key, strategies and guidelines in the design of furniture.	3	3/1
5	FK30402	TIMBER TRADE	therefore manufacturing them. Visits to furniture factories will be conducted as exposure to the students. The focus of this course is on trade flow of timber and timber products including non-timber forest products such as rattan. Students will be exposed to benefits and the volume of trade in timber and timber products, and major theories that explain why international trade is carried out. In addition, they will also be exposed to trade patterns, globalisation, as well as the reduction in regulations in international trade. Discussions on entry strategies into global markets, management of international markets, as well as current trade issues including trade barriers will also be held.	2	3/2



UH64	UH6421001 (HS03) BIOLOGI PEMULIHARAAN							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	FB13103	Introduction to Conservation Biology	This course discusses the importance of conservation and/or protection of environmental and biological components to mankind and several ecosystems. The relationship between man and the environment along with their related problems will be discussed from local and global perspectives. The importance of biological diversity and its relationship with environmental factors and impact of human activities on them will be put forward. Methods of conservation by <i>in-situ</i> or <i>ex-situ</i> will also be discussed, followed by strategic approaches in environmental management encompassing the protection of biological diversity. The final part of this course will touch on several variables in conservation biology such as knowledge on taxonomy, the existing rules and regulations and influence of politics on the management initiatives.	3	1/1			



#### FACULTY OF FOOD SCIENCE AND NUTRITION

UH6	UH6541002-FOOD SCIENCE AND NUTRITION							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	NP20002	Food Habits	This is an introductory course to food habits. This course aims to provide current, evidenced based knowledge on food habits in consideration of ethnicity, race, religion, age group and economic, social and psychological circumstances which a6re central in understanding the impact of food habits on nutrition and well-being.	2	2/1			
2	NT10102	Fundamentals of Food Science and Nutrition	The course will provide students with introductory knowledge of the components of food (macro and micronutrients), functionality of food components as ingredients in food, food microbiology (including food safety), food processing and preservation as well as nutrition	2	1/1			
3	NT20302	Human Nutrition	This course provides an overview of fundamental knowledge in nutrition. Students will learn about nutrition standards and guidelines in Malaysia, nutrient requirements and function in humans, digestion and absorption of each nutrient in relation to the intake of a well-balanced and healthy diet, health risks of over consumption and deficiency of various nutrients.	2	2/1			

UH6541001-FOOD SERVICE								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	NE41502	Food and Culture	This course is a theoretical and empirical exploration of human food choices from an ecological, political and sociological perspective. The course is designed to discuss the socio- cultural dimensions of food production, preparation and consumption that included dimensions of individual, family, community and societal structures, as well as ideological, religious and cultural identities embodied in gender, race, ethnicity and socioeconomic status.	2	2/1			

UH65	UH6541004-FOOD TECHNOLOGY AND BIO PROCESSING								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER				
1	NB20502	Food Enzymology	The historical uses of enzymes to make beer, wine, cheese, and bread are fine examples of the industrial exploitation on its catalytic function and selectivity. This course covers the basic and applied aspects of enzymology important to food systems. The basic aspects of the course include the basic enzyme properties, factors that affect enzyme activity and methods of measuring enzymatic activities. In the other	2	2/1				

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	hand, the applied aspects focusing on the		
	enzymes used by the food industry and methods		
	or controlling endogenous enzyme activities.		



#### FACULTY OF SCIENCE AND NATURAL RESOURCES

UH654	UH6545002- INDUSTRIAL CHEMISTRY						
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	SK12703	Organic Chemistry I	This course is one of the four main sub- disciplines of Chemistry. The course is important to the students in term of understanding the concepts and principles of organic chemistry.	3	1/1		
2	SK12503	Physical Chemistry I	The course is important to the students in term of understanding of the concepts and fundamental principles of physical chemistry.	3	1/1		
3	SK12902	Laboratory Safety and Accreditation	This course is designed to increase students' laboratory skills, as well as awareness on chemical hazard, risk, safety and health in the laboratory. The course also introduces the importance of ISO/IEC 17025 certification.	2	1/1		
4	SK25903	Synthesis Organic	Synthesis Organic is a continuation of SK12703 Organic Chemistry.	3	2/1		
5	SK23903	Quantum Chemistry and Thermodynamic	Physical chemistry is a component of industrial chemistry.	3	2/1		
6	SK40503	Principles and Technology in Food Industry	<ul> <li>To understand the principles and application of chemistry in food industry.</li> <li>Translate the technology of food industry into business entity.</li> <li>Relate and apply all technical aspects into business plan.</li> <li>Provide an understanding the concept of planning in business based on the principles in food industry.</li> <li>Learn the basic skills required in preparing a business plan.</li> <li>Expose how to prepare and evaluate the viability of a business plan.</li> <li>Expose students with the real business operation related to the food industry.</li> </ul>	3	4/1		
7	SK40703	Forensic Chemistry	For students interested in pursuing careers in Forensic Chemistry, the course helps the student to develop approaches to understanding, correctly using and further developing current chemical tools that are used in the Forensic Sciences.	3	4/1		



UH646	UH6461001- MATHEMATICS WITH ECONOMICS					
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER	
1	ST00702	Computer programming and simulation	Introduction of the basic concepts of computer languages mainly in C programming styles to be used in problem solving and preparation for students in understanding of the programming skills for supporting the needs of other courses especially in SM20402 and SM30302.	2	1/1	
2	SM14103	Mathematics I	This course will help students to build a strong basic concepts and foundations in calculus, thus providing the necessary background knowledge for students pursuing courses in advanced calculus. Student will be able to develop the ability to use analytically and graphically techniques to solve problems involving calculus or advanced calculus	3	1/1	
3	SJ13103	Economics Statistics	This course will help students to build a strong basic concepts and foundations in statistics (descriptive statistics, probability and inferential statistics), thus providing the necessary background knowledge for students pursuing courses in advanced statistics.	3	1/1	
4	ST00802	Data Analysis with Statistical Package	A clear understanding of the concepts and practical of statistical programming package will help students to become more familiar with the nature of analyzing data in statistics.	3	2/1	
5	SM24103	Linear Algebra	A clear understanding of the concepts of linear algebra will allow students to become more familiar with the nature of definition and proof in mathematics. A first course in linear algebra also serves as an introduction to the development of logical structure, deductive reasoning, and mathematics as a language.	3	2/1	
6	SJ14103	Microeconomics	The is an extension of Microeconomics I	3	2/1	
7	SJ14403	Macroeconomics	To give a basic understanding on the system of overall economy. Macroeconomics is the study of the economy as a whole. This course is a further study from microeconomics course, of which the students studied on the economic behavior of individual consumers, firms, and industries. In this macroeconomics course, the students will study in a broader context of the economy such as the characteristics of aggregate economic variables, and how various fiscal, monetary policies and international trade policies affect the economy.	3	2/1	



UH64	UH6461002- MATHEMATICS WITH COMPUTER GRAPHICS					
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER	
1	SV10103	Calculus	This course contains basic concepts of calculus as introduction to the mathematical functions which must be understood by students before taking more advance subjects such as Advance Calculus. This course also covers topics such as: limits, continuity, differentiation, integration and the applications of differentiation and integration. Then, as extends the method of single-variable differential and integration calculus to functions of two and more variables. This course also contains basic calculus for functions of several variables with topics such as: partial derivative, tangent planes, linear approximations, differentiability. This is followed by discussions on the concept of line and surface integrals of a vector integral calculus. Related aspects are introduced and discussed, including Green's Theorem, Divergence Theorem, and Stokes' theorem. This course ends with a discussion on Fourier series.	3	1/1	
2	SV20103	Advanced Calculus	This course covers the vector-valued functions which include the derivative, integration, arc length and curvature of vector functions; partial derivatives that include limits and continuity, chain rule, and maximum and minimum values; and multiple integrals which include the double and triple integrals of multivariable functions. Then, the solutions of ordinary differential equations which include solving the first order differential equations using the separable, exact differentiation, and linear equations methods. Then, the solutions of the second order equations covers the homogeneous and the non-homogeneous equations using the undetermined coefficients methods and variation parameters.	3	2/1	
3	SV20503	Mathematical Cryptography	This course begins with the introduction to the general concept of cryptography including the security goals, security attacks, data concealing techniques and Hard Mathematical Problems. Students also will be exposed to the role of cryptography in computer security concept. After that, some mathematical techniques those needed in cryptography will be taught such as modular arithmetic, algebraic structure and prime numbers. The next topic is about the conventional type of cryptosystem covering the mono-alphabetic and poly-alphabetic ciphers. Modern cryptosystem such as RSA, ElGamal, Rabin and Elliptic Curve cryptosystems will be taught such as direct, exploiting an error and active attacks. The last topic in this course is Digital Signature will be emphasized.	3	2/1	
4	SW32103	Numerical Method	Clear understandings of numerical methods together with programming skills for obtaining approximate solutions are introduced.	3	3/1	

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5	SW40703	Fuzzy Mathematics	The purpose of this course is to introduce the basic theory of fuzzy set and its applications; including fuzzy relations, fuzzy functions, extension principle, linguistic variables, and fuzzy logic. At the end of this course the students are able to understand the concepts of fuzzy theory and its application in related problems.	3	4/1

UH642	UH6422001- ENVIRONMENTAL SCIENCE							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	SS11102	Basics for Environmental Science	To introduce student the concepts of basic of environmental science studies.	2	1/1			
2	SS21703	Environmental Tourism	Tourism and the environment are interconnected; impacts from tourism activities will affect the wellbeing of the environment, social and also economic ecosystems. Understanding of this relationship will enable the stakeholders to address the negative impacts in a proactive and creative manner for sustainability. This course will be centred on tourism by taking into account sustainable development and also other environmental issues such as climate change.	3	2/1			

UH6443002- GEOLOGY							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		
1	SG33902	Geotourism	This course will introduce the concept of geotourism and explain the main geological features found locally and abroad which can be used as geological heritage. The detail steps of mapping, characterization and evaluation of a geological feature to be proposed as a geological heritage site will be elobarated. Development, planning and management of geological heritage sites for geotourism will also be discussed.	2	3/1		

UH6441001- INDUSTRIAL PHYSICS								
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER			
1	SF23103	Mathematical Methods in Physics II	This course is to further strengthen student's mathematic skills in order to understand intermediate or advanced level of physics.	3	2/3			
2	SF12503	Physics Mechanics	This course is aimed to describe the students how to effectively understand basic physics principles through identifying fundamental concepts, reason through scientific questions, and solve quantitative problems.	3	1/1			

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3	SF22903	Modern Physics	To form a strong foundation in fundamental concept of modern Physics and its interrelationship with the physical phenomena that we observe in our universe. It is broad ranging and essential to all the sciences. Students will develop problem-solving skills, learning how to logically approach and evaluate a variety of physical situations.	3	2/1
4	SF33103	Solid State Physics	A clear understanding of the basics of solid state or condensed matter physics will allow students to become more familiar with the theory of solid state physics. This course is able to explain the properties of solid materials as found on Earth.	3	3/1
5	SF13203	Mathematical Methods in Physics I	The unambiguous description of physical problem requires the skillful application of a wide range of mathematical concept that used to model the physical world. The introduction of this course will provide the student skill of applying the mathematics to physics problems.	3	1/2
6	SF13003	Wave and Optics	Wave and optics are two major components in Physics. A clear understanding in these two components will further strengthen students' foundation in Physics, and therefore will help students to understand other components better.	3	1/2
7	SF33203	Semiconductor Physics	Developments in the areas of semiconductor physics have led to major advances in technology from the PC to nanoscience. This module provides the student with an ample knowledge of the fundamentals of semiconductor physics and devices necessary to cope with semiconductor industry environment.	3	3/6
8	SF23403	Quantum Physics	Quantum Physic is the fundamental theoretical framework of Physics. In this course, will briefly discuss the historical development which led to a crisis in classical physics (Classical Theory), and finally to the quantum revolution. This leads to the understanding of the nature of the physical phenomena which govern the behavior of solids, semiconductor lasers, atoms, nuclei, sub nuclear particles and Lights. This course will strengthen the students' skill to develop the mathematical and conceptual tools to solve simple but important quantum physics problems.	3	2/4

UH6624001- AQUACULTURE							
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER		

1	SQ10103	Principles of aquaculture	This course is designed to provide knowledge on various types of aquaculture systems and the concept of sustainable aquaculture management. Topics emphasized include the purpose and scope of aquaculture practices, the biological principles that underlie the development of aquaculture, the quality of organisms that can be cultured and the socio-economic importance of aquaculture in Malaysia.	3	1/1
2	SQ23103	Genetics of Aquaculture Animals	Proper breeding and genetic selection are important in knowledge-based aquaculture development. To satisfy this, knowledge on genetic principles, genetic material of cells, phenotypes and genotypes, autosomal and sex-linked genes, genetic diversity, DNA barcoding, application of biotechnology and genetic principles in aquaculture, development and maturation of gametes in fish, broodstock management, egg quality measurement, breeding cycle, induced breeding, inbreeding problems and hybridization are required, and hence will be thoroughly taught in this course.	3	2/1
3	SQ21503	Hatchery and grow out system	This course emphasizes the theoretical and operational principles of recent advanced system used in hatchery and also numerous types of aquaculture grow out systems. The management of both hatchery and grow out system will also be highlighted in this course.	3	2/1
4	SQ21203	Broodstock management and seed production	The aim of the course is to provide the essential principles of broodstock management and seed production of various important fish species and other species in aquaculture. This subject will encompass aspects from sourcing broodstock to egg collection,	3	2/1

			larval rearing to transportation of the seed to grow out farms.		
5	SQ21403	Fish health and Diseases	This course discusses the types of common diseases affecting aquaculture animals including fish, mollusks and shrimp. It focuses on non-infectious diseases (environmental, nutritional and genetic) and infectious diseases such as caused by viruses, bacteria, fungi and parasites. It describes the clinical signs of each disease, modes of infection and life cycle of the pathogens. It covers prevention and treatment options that are required for a holistic fish health and disease management.	3	2/2
6	SQ31403	Seaweed culture	This course aims to introduce economically important seaweed species and their biology; to highlight the abundance of seaweed species in Malaysia and its potentials; to teach some basic culture techniques, and an understanding of the challenges and problems in the seaweed industry. Lectures will focus on the fundamentals of phycology and introduction of varieties of economically important seaweed species that are being cultivated around the world. An in-depth preview of seaweed diversity in Malaysia with emphasis on the availability of seaweed resources as a lucrative seaweed-based industry will be given. Selected topics on seaweed variety, distribution and the biological features of local seaweeds; seaweed culture practices and state- of-the-art protoplast generation techniques; harvesting, seaweed	3	3/2



	diseases and post-harvest practices; extraction of commercially important carrageenan and the problems faced in this industry will be discussed. To put theory into practice and allow students to gain "real world" experience, this course will apply the SULAM's (Service Learning Malaysia – University for Society) pedagogy.		
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UH644	UH6443003- MARINE SCIENCE					
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER	
1	SL10503	Physical Oceanography	This course provides fundamental knowledge about physical processes influencing the ocean and coastal regions: the distribution of oceanic winds, currents, heat fluxes and water masses; the interaction of ocean and atmosphere; and ocean circulation. This provides the students with an understanding of the interaction between the ocean and the atmosphere and the influence it has on the environment based upon some physical laws and concepts.	3	1/1	
2	SL10703	Biological Oceanography 1: Flora	This course will allow students to explore key concepts in marine flora. Students will have the opportunity to learn how to recognise key characteristics of different groups of marine plants and identify and preserve specimens. Students will investigate the evolution and diversity of marine plants and the roles plants play in marine ecosystems, global carbon budgets, and aquaculture and commercial applications. The course will provide interactive and hands-on laboratory, and field based practicals, which will enable students to develop skills in recognising the influence of anthropogenic factors that threaten marine plants.	3	1/1	
3	SL20303	Marine Ecosystems	The course provides critical and wide ranging knowledge of the marine ecosystem to the student of this programme. This course deals with various marine ecosystems such as coral reefs, seagrass meadows, seaweed beds, mangroves forests and sandy and rocky shores. These ecosystems support a variety of marine biodiversity of high value be it for	3	2/1	

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			fisheries, tourism, recreation and subsistence, making this course an important subject in the marine science programme.		
4	SL20703	Mariculture	Mariculture or marine aquaculture is one of the fastest growing food production industries in the world. It is also a significant protein source to people of certain area, especially at the coastal area. It involves with the cultivation of marine animals such as groupers, shrimps, mussels and seaweed. Thus, this course is introduced to develop specific skills in culturing methods of mariculture organisms as well as to develop interest in mariculture entrepreneurship	3	2/1
5	SL30303	Marine Pollution	Pollution of marine environments is a global issue threatening the health and productivity of the oceans. Such pollution arises from both land and sea based activities including sewage, industrial discharges, marine litter, oil spills and others. With that intention, this course provides a fundamental understanding of the marine pollution with a significant emphasis given to methods of monitoring and protecting environmental resources. Besides, the knowledge will support a sustainable economic development based on ecological compatibility.	3	3/1

UH6545001- BIOTECHNOLOGY						
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER	
1	SY22702	Biophysical Chemistry	Knowledge of basic biophysic and physio- chemistry of living biological systems are important in order to understand how these systems are functioning. In addition, the principles of techniques such as, chromatography, electrophoresis, NMR, X-ray Crystallography, Mass spectrometry will be utilized by the students for in depth understanding of living biological systems	2	2/1	
2	SY22303	Immunology	The purpose of the Immunology course is to provide a basic knowledge of the immune response and its involvement in health and disease.	3	2/1	

3	SY22902	Virology	This course is designed to provide in-depth knowledge in the study of viruses by providing an understanding of how viruses are built, how they replicate and evolve, how they cause disease, and how to prevent infection. This field is considered important nowadays since the emerging outbreak of some deadly viruses throughout the world and viruses have been shown to infect all forms of life. With the fast developing field of biotechnology, this course will also emphasize the use of viruses in biotechnology, and the impact of biotechnology on virology and viral diseases.	3	2/1
4	SY32103	Biochemical Engineering	This course introduces the basic concept of biochemical engineering. It is suitable for students who have limited knowledge or no knowledge on life science and it will focus on engineering aspects of biological system. The syllabus consists of primary metabolite pathway, cell growth and product formation, microbial growth stoichiometry and product formation, substrate kinetics application, biomass production and transport in bioprocess system. In the end, bioprocess application in biological system will complete this course.	3	3/1
5	SY32703	Bioinformatics	In this course, students will be introduced to theory and applications of bioinformatics with the use of operating systems, software, tools, online resources, databases, and work flows to process large amount data to produce meaningful biological results.	3	3/1
6	SY40302	Special Topics in Biotechnology	Due to the advancement of knowledge and techniques in biotechnology, the course is designed to provide the students with the knowledge of the latest issues and development in this field.	2	2/1
7	SY40902	Biosafety, Bioethics and Patent	Biotechnology research in agriculture, chemistry, medicine, exobiology and beyond will likely require application of the precautionary principle on the biological nature of the threatened organism, as well as the matter involve of research ethics and protection of research findings. Therefore, it is very important for the students to be able acquire knowledge and techniques in biosafety, bioethics and patent.	2	4/1



## FACULTY OF SOCIAL SCIENCES AND HUMANITIES

<b>UH63</b>	<u> 321001 – CO</u>	MMUNICATION			
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER
1	AK10103	Foundations Communication	The course was design to expose students to understand and to explore the communication process to build a strong foundation in communication study. It will start with communication definitions, basic elements of communication, functions of communication, and basic communication models. Brief history of communication study and the evolutions of media development will be discussed. This will be followed by different type of communication that covered intra & interpersonal communication, verbal & nonverbal communication, and small & big group communication. Students will also be introduced to the communication disciplines such as journalism, broadcasting and public relations emphasizing on its basic roles and power. Complexity in dealing with issues, audience and media organizations will also be touch.	3	1/1
	AK21103	Principles of Public Relations	The course aims to introduce to students about public relations from its early practice to its current roles in contemporary societies. This course serve as the foundation to the field of public relations by discussing topics such as history of public relations, theories, principles, strategic planning, management practice as well as career in public relations.	3	1/1
	AK30103	Philosophy of Communication	Philosophy of Communication introduces students to a range of philosophical thoughts by philosophers from the West and East relevant to communication studies. Students will be expose the philosophical thoughts of philosopher from the ancient Greek period (Occident) and Eastern (Orient) in their bid to interpret, evaluate, elements, systems and communication process critically.	3	1/1
	AK30703	Research in Public Relations	Research in Public Relations introduces a scientific approach to the design and implementation of public and commercial information and communication programmes and campaigns. It invites students to critically examine various forms of narratives, discourses, symbols, and images constructed by commercial, political and non-government bodies to influence public opinion and behaviour. The course focuses on situation analysis, and research methods and techniques deployed in the summative and formative stages of a communication project. It provides students hands-on experience in conducting small-scale studies of campaign effectiveness, market research and opinion polls.	3	1/1
<b>UH634</b>	7001 - INDUS	TRIAL RELATIONS			
NO.	COURSE CODE	COURSE NAME	COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER
2	AH20103	Organizational Communication	This course tries to expose student to the functions of communication in determining the development and the excellence in an organization. The study will be on observation and understanding how man communicates using words, symbols and action which could	3	1/1

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		1	UNIVERSITI MALAYSIA SABAH		
	AH21303 AA30503	Contemporary Trade Union Movement Borneo Ethnography	increase the organization's daily activities. To understand how and why individuals behave in certain manners, one should know in what ways individuals could interact better for the success of the organization. The aim of this course is to expose students to the theoretical and practical aspects in communication i.e on how people communicate among themselves. Communication is an important aspect in an organization. Therefore, a study on organizational communication could accommodate basic understandings. Whereby each process in communication is usually connected with human relations, for examples conflicts, ethics, functions, rules, cultures, networks, varieties, leadership, creativity and technology. Through this course, students will be introduced to theories and the pragmatic relations in various types of organizational communications. This course offers a better understanding of the trade union movement particularly in the United Kingdom, Europe and some other parts of the world. The subject addresses the historical development of trade union and the external forces and intern al factors that influence trade unions movement to progressively respond to the needs of political, economic and social actors. The era of globalization and the rapid changes of technology are among the factors that shaped the trade unions today. This course introduces students to the socio- cultural diversity of Borneo through the study of specific indigenous communities. Five main groups will be studied representing examples of	3	1/1
			in a variety of traditional socio- economic		
			in a variety of traditional socio- economic activities, from nomads to shifting cultivators to more sedentary communities		
114631	2001 - 50010		in a variety of traditional socio- economic activities, from nomads to shifting cultivators to more sedentary communities.		
UH631 NO.	2001 - SOCIO COURSE	LOGY & SOCIAL ANTHR	in a variety of traditional socio- economic activities, from nomads to shifting cultivators to more sedentary communities. OPOLOGY COURSE DESCRIPTION	CREDIT	YEAR/
UH631 NO.	2001 - SOCIO COURSE CODE	LOGY & SOCIAL ANTHR COURSE NAME	in a variety of traditional socio- economic activities, from nomads to shifting cultivators to more sedentary communities. OPOLOGY COURSE DESCRIPTION	CREDIT HOUR	YEAR/ SEMESTER
UH631 NO. 3	2001 - SOCIO COURSE CODE AA30903	Contomporery Conictuity	in a variety of traditional socio- economic activities, from nomads to shifting cultivators to more sedentary communities. OPOLOGY COURSE DESCRIPTION The aim of this course is to introduce students to diverse theories that explain gender issues, specifically gender inequality and gender relations in contemporary society. This course is intended to provide a critical perspective of how different socie-ties construct gender identity, and gender roles, and how the consequences of such constructions affect institutions, culture and society. The discussion in this course is divided into four main sections. The first deals with the ideas, concepts and meth-ods of studying gender and gender inequality in a society. The second section focuses on the major theories of gender analy-sis, and the comparison of those perspectives. The third section further discusses the theories related to gender issues by applying the relevant theory to groups that had been marginalized in the previous theoretical discussions. Finally, in the fourth section, the course addresses the issues that were raised by feminists in their research related to gender. Much of this section will be spent discussing empirical research in relation to the theories that were discussed in the previous sections.	CREDIT HOUR 3	YEAR/ SEMESTER 1/1



			among societies in Southeast Asia. The focus of discussion are typical issues faced by developing countries, such as the legacies of colonialism, ethnicity and identity, migration, nation-building and the impact of globalization.	-	
	AS31603	Human Rights	This course examines the gradual construction of an international human rights regime and its influence on international politics. The course seeks to understand how and why human rights standards have come into being and how they change over time. The course will survey the actors and organizations, including states, international organizations, and non-state actors, involved in the promotion of human rights around the globe, as well as obstacles to such promotion.	3	1/1
	AS31703	History of Diplomacy	The purpose of this course is to introduce students to the history of diplomacy and gain an understanding of how states pursue their national interest in a complex and conflictual world without resorting to war. This course aims expose students to the evolution of diplomacy as a tool of foreign policy and develop knowledge on the causes of the failures of diplomacy.	3	1/1
	3001 - INTER	NATIONAL RELATIONS		CREDIT	YEAR/
NO.	CODRSE	COURSE NAME	COURSE DESCRIPTION	HOUR	SEMESTER
	AS31503	Global Environmental Politics	This course is focussed on the various environmental problems that are shared by international community as a whole. The main environmental issues that will be discussed are climate change, species extinction and biodiversity. The scientific arguments of those issues will not be covered, instead emphasis will be on how international actors acted upon these issues by holding discussions and implementing environmental regimes. This course also discusses the roles play by actors and non-states actors in establishing various environmental regimes. The pertinent question that needs to be addressed is whether it would be possible for more than 190 states and non-states actors to work together in managing environmental problems effectively.	3	1/1
4	AG10203	Mapping & Map Interpretation	This course is offered to train the students of the importance of mapping and map interpretation in various related fields. Students will be exposed with cartography and graphic techniques to understand each element especially symbols interpretation found in maps, plan, diagram, etc. This course covers drawing of maps, map charts, symbols, and map analysis using GiS software. The understanding of this course will produce creative and innovative students in implement- ing all the techniques given.	3	1/1
	AG20403	Spatial Information System	This course is an anvance for AG10403 Introduction to remote sensing and gis. In this course student will be learn the computerized mapping technique and understanding how map provide information attribute for planning and management. This course shall be divided into treble portion. First part covers data management. Second part is manipulation and analysis of data. While in the third part students will be covered the data attribute.	3	1/1



NO.	COURSE CODE	COURSE NAME		CREDIT HOUR	YEAR/ SEMESTER
5	AG21203	Management and Environmental Ecosystem	This course is an anvance for AG10403 Introduction to remote sensing and gis. In this course student will be learn the computerized mapping technique and understanding how map provide information attribute for planning and management. This course shall be divided into treble portion. First part covers data management. Second part is manipulation and analysis of data. While in the third part students will be covered the data attribute.	3	1/1
	AG31503	Social Impact Assessment	This course will begin by focusing on the historical, epistemological, and ideological aspects of SIA as currently practiced and as idealized by various practitioners. Students will be introduced to the early stages of conducting an SIA. Important steps in the beginning of any SIA involve determining: 1) the manner in which the public and various interested parties will be involved in the process; 2) the exact nature of the project, event or policy and any alternative scenarios regarding its future development; 3) the baseline conditions existing in a community prior to the advent of the projected change; 4) the anticipated impacts on social and physical; and 5) monitoring and evaluation. The course will continue by focusing on geographical research techniques that can be used to examine the anticipated impacts and to discover previously unanticipated impacts or affected groups. Finally, the course will reflect on the implications of SIA research, theory and practice. As such, students should come away equipped with the ability to understand, interpret and design a full pladge implementation of SIA project.	3	1/1
	AJ10103	Pengantar Ilmu Sejarah	Pengantar Ilmu Sejarah, providing training in the skills required for advanced study in the field of History. Topics will include library and archival research, oral history, historical writing, historiography and interpretation. Students will eventually use the knowledge here to complete a supervised research project during the final year.	3	1/1