

FACULTY OF MEDICINE AND HEALTH SCIENCES

Undergraduate Programme offered :

Bachelor programme :

1. *Doctor of Medicine*
2. *Bachelor Science (Biomedical Science)*
3. *Bachelor of Science (Dietetics)*
4. *Bachelor of Science (Nutrition and Community Health)*
5. *Bachelor of Science (Environmental & Occupational Health)*
6. *Bachelor of Nursing*

STUDY SCHEME (DOCTOR OF MEDICINE)

Notes : L = Lecture , L/T = Laboratory/Tutorial							
SEMESTER 1				SEMESTER 2			
1 ST YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
SKP2203	Islamic Civilization and Asian Civilization	2	0	SKP 2101	Malaysian Nationhood	3	0
SKP2204	Ethnic Relations	2	0	MGM3180	Basic Entrepreneurship	2	1
CEL2102	Effective Listening and Speaking	2	0	BBI 2423	Academic Interaction and Presentation	2	1
LAX2004	Problem-based Learning in Medicine I			LAX 2006	Problem-based Learning in Medicine II		
SPP3212	Cell and Excitable Tissue			SPP3341	Immunology		
SPP3223	General Anatomy And Embryology			SPP3311	Haematology		
SPP3231	Molecular-Based Medicine			SPP3532	Cardiovascular System		
SPP3273	General and Biochemical Pharmacology			SPP3542	Respiratory System		
SPP3241	Gene Expression			SPP3522	Urinary System		
SPP3251	Human Genetics			SPP3552	Alimentary System and Nutrition		
SPP3321	General Pathology			SPK3011B	Early Clinical Experience II		
SPP3351	Medical Microbiology			SPP3591B	Problem Based Learning II		
SPP3371	Medical Parasitology and Entomology						
SPK3011A	Early Clinical Experience II						
SPP3591A	Problem Based Learning II						
2 ND YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
PRT2008	Agriculture and Human	2	0	CEL 2104	Oral Presentation	2	0
BBI2424	Academic Writing	2	1	LAX 2010	Problem-based Learning in Medicine IV		
LAX2008	Problem-based Learning in Medicine III			SPP3131	Behavioural Science		
SPP3562	Endocrine System			SPP3111	Professional Development		
SPP3572	Reproductive System			SPP3121	Communication Skills		
SPP3512	Musculoskeletal System			SPP3621	Research Methodology and Project		
SPP3582	Central Nervous System			SPK3011D	Early Clinical Experience IV		
SPP3424	Public Health Medicine			SPP3591D	Problem Based Learning IV		
SPP3425	Epidemiology						
SPP3613	Medical Statistics						
SPK3011C	Early Clinical Experience III						
SPP3591C	Problem Based Learning III						
3 RD YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
SPK3921	Introductory Medicine			SPK3923	Health Care of the Elderly		
SPK3931	Introductory Surgery			SPK3924	Introductory Radiology		
SPK3933	Otorhinolaryngology			SPK3971	Introductory Family Medicine		

SPK3934	Ophthalmology			SPK3937	Basic Life Support		
4TH YEAR							
<i>CODE</i>	<i>COURSE NAME</i>	<i>L</i>	<i>L/T</i>	<i>CODE</i>	<i>COURSE NAME</i>	<i>L</i>	<i>L/T</i>
SPK3961	Introductory Psychiatry			SPK3951	Introductory Obstetrics and Gynaecology		
SPK3914	Introductory Orthopaedics			SPK3941	Introductory Pediatrics		
SPK3972	Senior Family Medicine			SPK3982	Community Follow-Up		
SPK3981	Community Medicine			SPK3991	Clinical Attachment		
5TH YEAR							
<i>CODE</i>	<i>COURSE NAME</i>	<i>L</i>	<i>L/T</i>	<i>CODE</i>	<i>COURSE NAME</i>	<i>L</i>	<i>L/T</i>
SPK4922	Senior Medicine			SPK4942	Senior Pediatrics		
SPK4932	Senior Surgery			SPK4935	Forensic Medicine		
SPK4962	Senior Psychiatry			SPK4936	Anaesthesiology		
SPK4912	Senior Orthopedics			SPK4913	Accident and Emergency		
SPK4952	Senior Obstetrics and Gynaecology			SPK4925	Sports Medicine		

STUDY SCHEME (BACHELOR SCIENCE-BIOMEDICAL SCIENCE)

Notes : L = Lecture , L/T = Laboratory/Tutorial				SEMESTER 2			
SEMESTER 1				SEMESTER 2			
1 ST YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
SBP3116	Human Organization, Integumentary and Musculoskeletal Systems	2	1	SBP3117	Nervous and Endocrine Systems	2	1
SBP3411	Introductory Cell Biology	2	0	SBP3507	Basic Genetics	2	1
MGM3180	Basic Entrepreneurship	2	1	SBP3201	Basic Medical Biochemistry	2	1
BBI2423	Academic Interaction and Presentation	2	1	SKP2204	Ethnic Relations	2	0
SKP2203	Islamic Civilization and Asian Civilization	2	0	SKP2101	Malaysian Nationhood	3	0
PRT2008	Agriculture and Human	2	0	BBI2424	Academic Writing	2	1
QKxxxx	Co-curriculum I	0	1	QKxxxx	Co-curriculum I	0	1
	TOTAL	12	4		TOTAL	13	5
2 ND YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
SBP3118	Cardiovascular, Lymphatic and Respiratory Systems	2	1	SBP3119	Digestive, Urinary and Reproductive Systems	2	1
SBP3012	Haematology	2	1	SBP3403	Basic Medical Microbiology	2	1
SBP3502	Human Genetics	2	1	SBP3503	Applied Molecular Biology	2	1
SBP3410	Cell and Tissue Culture	2	1	SBP3408	Basic Immunology	2	0
SBP3009	Basic Laboratory Skills	1	1	PKK3302	Basic Epidemiology	3	0
SBP3004	Laboratory Animal Management	2	1	SBP4904*	Biomedical Practicum	0	4
	TOTAL	11	6		TOTAL	11	7
3 RD YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
SBP4401	Advanced Medical Microbiology	2	1	SBP3302	Toxicology	2	1
SBP3404	Medical Parasitology and Entomology	2	1	SBP3003	Biomedical Statistics	1	1
SBP3011	Pathology	2	1	SBP3409	Advanced Immunology	1	1
SBP3202	Clinical Biochemistry	2	1	SBP3013	Transfusion Science	1	1
SBP3511	Health Informatics	2	0	SBP3510	Basic Bioinformatics	2	1
SBP3301	Pharmacology	2	1	SBP3010	Laboratory Science	2	1
	TOTAL	12	5	SBP4905*	Industrial Training	0	8
					TOTAL	9	14
4 TH YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
SBP4959A	Bachelor Dissertation	0	4	SBP4959B	Bachelor Dissertation	0	4
SBP3005	Laboratory Management	2	0	SBP3014	Behavioral Science	3	0
SKP2501	Introduction to Psychology	3	0	SBPxxxx	Elective		
SBP3002	Biomedical Research Methodology	2	0	SBPxxxx	Elective		
SBPxxxx	Elective				TOTAL		
	TOTAL						

STUDY SCHEME (BACHELOR OF SCIENCE-DIETETICS)

Notes : L = Lecture , L/T = Laboratory/Tutorial							
SEMESTER 1				SEMESTER 2			
1 ST YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
PKK3003	Human Anatomy and Physiology	2	1	DTK3100	Principles of Food Preparation	2	1
SBP3403	Basic Medical Microbiology	2	1	DTK3210	Basic Nutritional Immunology	2	0
PKK3200	Principles of Human Nutrition	3	0	PKK3203	Nutrition Throughout the Life Cycle	3	0
PRT2008	Agriculture and Human	2	0	PKK3206	Genetics and Nutrition	2	0
SKP2101	Malaysian Nationhood	3	0	PKK3204	Nutritional Biochemistry	3	1
SKP2203	Islamic Civilization and Asian Civilization	2	0	BBI2423	Academic Interaction and Presentation	2	1
SKP2204	Ethnic Relations	2	0	MGM3180	Basic Entrepreneurship	2	1
QKxxxx	Co-curriculum I	0	1		TOTAL	16	4
	TOTAL	16	3				
2 ND YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
DTK3211	Pathophysiology and clinical management of diseases	3	0	DTK3103	Institutional Foodservice Management II	1	2
DTK3212	Assessment of Nutritional and Health Status of Patients	2	1	DTK3213	Introduction to Hospital Services	0	1
DTK3102	Institutional Foodservice Management I	3	0	DTK3216	Medical Nutrition Therapy I	2	1
PKK3100	Food, Society and Culture	3	0	PKK3002	Biostatistics and Research Methodology in Nutrition	2	1
PKK3303	Maternal and Child Health	2	1	PKK3302	Basic Epidemiology	3	0
BBI2424	Academic Writing	2	1	PKK3406	Nutrition and Health Promotion I	2	1
QKxxxx	Co-curriculum II	0	1	BB_2401	Global Language	2	1
	TOTAL	15	4		TOTAL	12	7
3 RD YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
DTK3001	Current Development in Dietetics	1	1	DTK3215	Nutrition Care Process	0	1
DTK3002	Nutrition Counseling and Patient Education	3	1	DTK3218	Medical Nutrition Therapy III	2	1
DTK3214	Practice of Professional Behaviour	0	1	DTK4901	Institutional Food Service Management Professional Practicum	0	4
DTK3217	Medical Nutrition Therapy II	2	1	DTK4959B	Bachelor Dissertation	0	3
DTK4959A	Bachelor Dissertation	0	3	PKK4206	Sports Nutrition	3	0
PKK4205	Nutrition, Physical Activity and Exercise	2	1		Elective	2	0
PKK4401	Geriatric Health and Nutrition	3	0		Elective	2	0
	TOTAL	11	8		TOTAL	9	9
4 TH YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
DTK4902	Clinical Dietetic Professional Practicum	0	14	DTK4904	Community Dietetic Professional Practicum	0	6
	TOTAL	0	14	DTK4903	Elective Clinical Dietetic Professional Practicum	0	6
					TOTAL	0	12

STUDY SCHEME (BACHELOR OF SCIENCE-NUTRITION AND COMMUNITY HEALTH)

Notes : L = Lecture , L/T = Laboratory/Tutorial							
SEMESTER 1				SEMESTER 2			
1 ST YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
PKK3003	Human Anatomy and Physiology	2	1	PKK3203	Nutrition Throughout the Life Cycle	3	0
PKK3200	Principles of Human Nutrition	3	0	PKK3204	Nutritional Biochemistry	3	1
FST3003	Introduction to Food Science	3	0	PKK3401	Assessment of Nutritional and Health Status	2	1
SKP2101	Malaysian Nationhood	3	0	DTK3210	Basic Nutritional Immunology	2	0
SKP2204	Ethnic Relations	2	0	SKP2203	Islamic Civilization and Asian Civilization	2	0
PRT2008	Agriculture and Human	2	0	BBI2423	Academic Interaction and Presentation	2	1
MGM3180	Basic Entrepreneurship	2	1	QKxxxx	Co-curriculum I	0	1
	TOTAL	17	2		TOTAL	14	4
2 ND YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
DTK3100	Principles of Food Preparation	2	1	PKK3107	Food Safety for Consumer Health	2	1
PKK3104	Basic Foodservice Management	2	1	PKK3303	Maternal and Child Health	2	1
PKK3105	Nutrient Composition and Analysis	2	1	PKK3406	Nutrition and Health Promotion I	2	1
PKK3206	Genetics and Nutrition	2	0	PKK3207	Clinical Nutrition I	3	0
PKK3302	Basic Epidemiology	3	0	PKK4205	Nutrition, Physical Activity and Exercise	2	1
PKK3304	Behaviour and Health	3	0	PKK4403	Community Nutrition Practicum	0	4
BBI2424	Academic Writing	2	1	QKxxxx	Co-curriculum II	0	1
	TOTAL	16	4		TOTAL	11	9
3 RD YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
PKK3002	Biostatistics and Research Methodology in Nutrition	2	1	DTK3000	Nutrition Counseling	2	1
PKK3100	Food, Society and Culture	3	0	PKK3108	Laboratory Techniques in Nutritional Research	1	1
PKK3208	Clinical Nutrition II	2	1	PKK3001	Seminar: Current Issues in Nutrition and Health	1	1
PKK3407	Nutrition and Health Promotion II	0	2	PKK4959A	Bachelor Dissertation	0	6
	Elective	3	0		Elective	3	0
	Elective	3	0		TOTAL	7	9
	TOTAL	15	2				
4 TH YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
PKK3408	Food and Nutrition Policy	3	0	PKK4902	Industrial Training	0	18
PKK4959B	Bachelor Dissertation	0	6		TOTAL	0	18
	Elective	3	0				
	Elective	3	0				
	TOTAL	9	6				

STUDY SCHEME (BACHELOR OF SCIENCE-ENVIRONMENTAL AND OCCUPATIONAL HEALTH)

Notes : L = Lecture , L/T = Laboratory/Tutorial							
SEMESTER 1				SEMESTER 2			
1 ST YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
SKP2101	Malaysian Nationhood	3	0	SKP2203	Islamic Civilization and Asian Civilization	2	0
SSK3000	Information Technology And Its Applications	2	1	SKP2204	Ethnic Relations	2	0
EOH3401	Principles of Health	3	0	SBP3111	Human Physiology	3	1
CHM3201	Organic Chemistry I	3	1	SBP3201	Basic Medical Biochemistry	2	1
PRT2008	Agriculture and Human	2	0	EOH3101	Principles of Environmental Health	3	0
BBI2423	Academic Interaction and Presentation	2	1	BBI2424	Academic Writing	2	1
QKxxxx	Co-curriculum	0	1	QKxxxx	Co-curriculum	0	1
	TOTAL	15	4		TOTAL	14	4
2 ND YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
EOH3103	Community Health and Air Pollution	2	1	SKP2501	Introduction to Psychology	3	0
EOH3202	Occupational Health	3	0	MGM3180	Basic Entrepreneurship	2	1
SBP3403	Basic Medical Microbiology	2	1	EOH3206	Industrial Safety and Emergency Response	4	0
EOH3307	Environmental and Occupational Health Biostatistics	2	1	EOH4104	Water Quality in Environmental Health	2	1
EOH3304	Environmental and Occupational Health Laws and Professional Ethics	4	0	EOH4301	Industrial and Environment Toxicology	3	0
EOH4905	Environmental Health Industrial Training	2	1	EOH4302	Environmental and Occupational Health Epidemiology	3	0
	TOTAL	13	7		TOTAL	17	2
3 RD YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
EOH3306	Management of Toxic Substances and Solid Wastes	3	0	PKK3107	Food Safety for Consumer Health	2	1
EOH4101	Environmental Health Monitoring and Analysis	2	1	EOH3203	Industrial Hygiene	0	3
EOH3402	Community Health Program Management	3	0	EOH4304	Assessment of Exposure and Chemical Health Risk	3	0
EOH4306	Health Research Methodology	3	1	EOH4959A	Bachelor Dissertation	0	3
EOH4906	Community Health Industrial Training	0	4		Elective	3	0
	Elective	3	0		TOTAL	8	7
	TOTAL	14	6				
4 TH YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
EOH4308	Health Impact Assessment	3	0	EOH4907	Environmental and Occupational Health Industrial Training	0	20
EOH4201	Ergonomik/ Ergonomics	3	0		TOTAL	0	20
EOH4202	Occupational Safety and Health Management System	2	1				
EOH4959B	Bachelor Dissertation	0	3				
	TOTAL	8	4				

STUDY SCHEME (BACHELOR OF NURSING)

Notes : L = Lecture , L/T = Laboratory/Tutorial							
SEMESTER 1				SEMESTER 2			
1 ST YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
BBI2423	Academic Interaction and Presentation	2	1	SKP2204	Ethnic Relations	2	0
SBP3110	Introduction to Human Physiology	3	0	BBI2424	Academic Writing	2	1
SKP2101	Malaysian Nationhood	3	0	NUR3104	Biochemistry and Pharmacology	2	1
ANA3101	Human Anatomy	2	1	SBP3401	Hematology	2	1
SKP2203	Islamic Civilization and Asian Civilization	2	0	PRT2008	Agriculture and Human	2	0
NUR3201	Nursing Concepts and Practice I	2	1	NUR3202	Nursing Concepts and Practice II	2	1
NUR3911	Clinical Practice I	0	3	NUR3003	Perspective of Nursing Theories	2	0
				NUR3912	Clinical Practice II	0	3
2 ND YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
SSK3000	Information Technology And Its Applications	2	1	PKK3200	Principles of Human Nutrition	3	0
SBP3404	Medical Parasitology and Entomology	2	1	NUR3307	Human Behavioral Science	3	0
SBP3403	Basic Medical Microbiology	2	1	NUR3208	Clinical Assessment	2	1
SBP3405	Pathology	2	1	NUR3404	Primary Health Care and Health Promotion	2	1
NUR3203	Adult Client Care I	2	1	NUR3204	Adult Client Care II	2	1
NUR3913	Clinical Practice III	0	3	NUR3914	Clinical Practice IV	0	3
	TOTAL	10	8		TOTAL	12	7
3 RD YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
MGM3180	Basic Entrepreneurship	2	1	NUR3001	Research and Statistic	2	1
NUR3207	Adult Client Care III	2	1	NUR3403	Community Health Care	2	1
NUR3506	Obstetric and Gynaecology	2	1	NUR3503	Care of the Sick Child	2	1
NUR3308	Personal and Professional Development in Nursing	3	0	NUR3504	Care of the Critical Client	2	1
NUR3002	Teaching in Nursing	1	1	NUR3522	Care Of Cancer and HIV Clients	1	1
NUR3915	Clinical Practice V	0	4	NUR3916	Clinical Practice VI	0	4
	TOTAL	10	8		TOTAL	9	9
4 TH YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
NUR4999	Final Year Project	0	2	NUR4999	Final Year Project	0	4
NUR3405	Community Health Intervention	1	2	NUR3521	Care of The Older Person	2	1
NUR3520	Mental Health Care	1	1	NUR3918	Clinical Practice VIII	0	3
NUR3917	Clinical Practice VII	0	3		Elective	1	3
	Elective	1	3		TOTAL	3	11
	TOTAL	3	11				

COURSE SYNOPSIS

Department of Environment and Occupational Health

- EOH3101 Principles of Environmental Health** 3 (3+0)
Prerequisite : None
This course focuses on the principles in interrelationship of health and the environment, impact of physical development and lifestyles on health, changes in disease trend and state and the importance of sustainable development in the prevention and control of problems in environmental health. The importance on the relationship between environmental health problems, psychological and socio-economic status of the community is also discussed
- EOH3103 Community Health and Air Pollution** 3 (2+1)
Prerequisite : None
This course covers chemical and physical processes which contribute to air pollution, and the effects of air pollution from epidemiological and public health perspectives. Acute and chronic public health effects predicted from pollution models will also be discussed
- EOH3202 Occupational Health** 3 (3+0)
Prerequisite : None
This course covers discussions regarding health, safety, and welfare of workers and organizations and its functions. Health problems which arise from various work related disease agents will be explained in detail. This course also provides exposure on issues with workers compensation as well as job stress and violence at the workplace. In addition, this course will discuss on the principles of occupational health and principles of prevention and control
- EOH3203 Industrial Hygiene** 3 (0+3)
Prerequisite : None
This course encompasses introduction to the principles, theories and common instruments used to monitor hazard in occupational health, the training includes the correct usage of equipment in a laboratory setting and during field-work
- EOH3206 Industrial Safety and Emergency Response** 4 (4+0)
Prerequisite : None
This course encompasses concepts and management of safety, best practices as well as safety cultures in various industries through different methods of identification, evaluation and control of work place hazards including industrial accident investigation and analysis which integrate workplace fire safety and prevention as well as emergency response preparedness
- EOH3304 Environmental and Occupational Health Laws and Professional Ethics** 4 (4+0)
Prerequisite : None
This course encompasses the acts and regulations pertaining to environmental and occupational health; discussion on the structure and content of the act, legal framework and compliance of related regulations; administrative techniques and social skill in controlling community and working environment
- EOH3306 Management of Toxic Substances and Solid Wastes** 3 (3+0)
Prerequisite : EOH3304
This course covers the management of toxic substances in workplace as well as the disposal of toxic and solid wastes, essential for the promotion of health and safety of workers and the community. Systematic management as well as the use of chemicals and appropriate control measures can prevent exposure and accidents. Regulations related to management of toxic substances and disposal of solid wastes will also be focused
- EOH3307 Environmental and Occupational Health Biostatistics** 3 (2+1)
Prerequisite : None
This course covers the introduction to certain types of analysis for different forms of data. Explanation to differences and relationships in research. Sample size estimation and the correct type of research including important tests in statistics

- EOH3401 Principles of Health** 3 (3+0)
 Prerequisite : None
 This course covers the concept and definitions of health, wellness, disease occurrence processes, basic principles and strategies for disease prevention; influence of environmental factors, risk factors, causative agents, lifestyles and behavioral factors, patho-physiology, treatment and prevention strategies are discussed by giving examples of infectious diseases, non-infectious diseases, cancer and mental disorders
- EOH3402 Community Health Program Management** 3 (3+0)
 Prerequisite : EOH3401
 This course covers the basic principles, essential elements and sequential steps required in community health program management. Decision making models, quality management functions and strategies in planning, implementation, evaluation of community health programs, analysis methodology and types of health care systems as a basis for the program management will be discussed. Disease control and prevention will be used as an example of community health program management
- EOH3403 Control and Management of Communicable Diseases** 3 (3+0)
 Prerequisite : EOH3401
 This course encompasses introduction to principles of epidemiology and surveillance of communicable diseases including vector-borne diseases, food and waterborne diseases, airborne diseases and sexually transmitted diseases. The scope includes basic clinical aspects, modes of transmission, screening, diagnosis, notification and reporting. Emphasis are given to epidemic management including promotion, prevention and control of outbreak
- EOH3404 Control and Management of Non-Communicable Diseases** 3 (3+0)
 Prerequisite : EOH3401
 This course encompasses the epidemiology of non-communicable diseases such as cardiovascular disease, diabetes mellitus, cancer, chronic respiratory diseases and road traffic accidents. Risk factors, screening tests, treatment and preventive measures will be discussed. The implication of diagnosis and treatment to patient's lifestyle, family members and occupation will also be discussed
- EOH3405 Environmental Parasitology** 3 (3+0)
 Prerequisite : None
 This course covers the basic of parasitology and entomology in environmental health, as well as the role of parasites and arthropods toward human health. The application of disease prevention in the promotion of community health will also be discussed
- EOH4959A/B Bachelor Dissertation** 6 (0+6)
 Prerequisite : EOH4306
 This course encompasses the preparation of the research proposal, implementation, collection and analysis of data with ethical issues taken into consideration. Students are required to present the research findings and produce the dissertation
- EOH4101 Environmental Health Monitoring and Analysis** 3 (2+1)
 Prerequisite : EOH3103
 This course encompasses the introduction to principles and techniques of monitoring, standard method, quality control and sample analysis for physical, chemical hazards originated from environmental sources and biological samples from humans. Students will be able to interpret the results of the analysis for environmental health impact on the community
- EOH4103 Environmental Health Policy And Planning** 3 (3+0)
 Prerequisite : EOH3304
 This course covers an introduction to the formulation of environmental health policies through providing a foundation for planning and evaluation of environmental health intervention programs; in addition, fundamental concepts and skills in developing accords related to environmental issues for preserving human sustainability and global environmental resources. This course will address the ongoing challenges and methods in solving environmental issues and human health faced by governmental officials, policy makers, and stakeholders in Malaysia and the international arena

- EOH4104 Water Quality in Environmental Health** 3 (3+0)
 Prerequisite : None
 This course covers the definitions and concepts of water quality and on the importance of safe and adequate water supply in terms of public health. Students will be given exposure to the theory and application of environmental and pollution strategies in the aspects of environmental quality and best practice environmental options, including examining the statutory and regulatory frameworks controlling water quality management activities in Malaysia. Engineering aspects of quality control and introduction to water-based research and the relationship with human health are also covered
- EOH4201 Ergonomics** 3 (3+0)
 Prerequisite : EOH3203
 This course encompasses on industrial ergonomics concepts and methods and its applications in the process of adapting work tasks and environment to human through the understanding of human physiology, human biology, biomechanics and psychology
- EOH4202 Occupational Safety and Health Management System** 3 (3+0)
 Prerequisite : EOH3202
 This course encompasses the introduction on the principles of managing health and safety in an occupational setting including elements of OHSMS based on national and international standards. Comparisons of OHSMS in various work places as well as the principles of management system auditing are also discussed
- EOH4301 Industrial and Environment Toxicology** 3 (3+0)
 Prerequisite : None
 This course encompasses the general principles of toxicology and the mechanism of actions of chemical(s) underlying the adverse health effects observed especially among workers and the general public
- EOH4302 Environmental and Occupational Health Epidemiology** 3 (3+0)
 Prerequisite : None
 This course will expose students to epidemiological approaches in understanding the causation and types of diseases as a result of environmental and occupational exposures, the role of epidemiological research in Environmental and Occupational Health fields and the suitability of research designs for various case studies in environmental and occupational health
- EOH4304 Assessment of Exposure and Chemical Health Risk** 3 (3+0)
 Prerequisite : EOH4301
 This course encompasses the concepts and methods of exposure and health risk assessments in the workplace in decision making for an organization and community. Knowledge and skills for the assessment and quantification of chemical risks in the workplace and strategies for preventive control will be discussed
- EOH4306 Health Research Methodology** 4 (3+1)
 Prerequisite : EOH3307
 This course encompasses the use of biostatistics principles, research principles and sampling techniques in developing research proposals in the fields of Environmental and Occupational Health
- EOH4308 Health Impact Assessment** 3 (3+0)
 Prerequisite : EOH4301 and EOH4302
 This course encompasses analysis of hazards, human exposures, dose-responses as well as their risk characterizations from various environmental components and the requirements for carrying out a health impact assessment (HIA) and its rationale with emphasis on development projects
- EOH4905 Environmental Health Industrial Training** 4 (0+4)
 Prerequisite : None
 This course provides initial exposure to students on the roles of Local Councils in implementing activities relating to the field of environmental health under the Local Council Act. During the attachment, students will be able to experience the implementation and enforcement by the Local Councils in executing laws under their jurisdiction. Community-based programs such as mosquito surveys are performed. A final report and presentation is prepared by the student at the end of this course

EOH4906 Community Health Industrial Training

4 (0+4)

Prerequisite : None

This course exposes students to activities in the District Health Office, Ministry of Health relating to the fields of environmental and community health. During the attachment, students will be able to experience the roles of the Ministry of Health in enforcing laws under their jurisdiction. Community-based programs such as food safety checks are performed. A final report and presentation is prepared by the student at the end of this course

EOH4907 Environmental and Occupational Health Industrial Training

20 (0+20)

Prerequisite : None

This course exposes students to activities in private companies relating to the fields of occupational and environmental health. During the attachment, students will be able to acquire the experience on how private companies implement laws under their jurisdiction. A final report and presentation is prepared by the student at the end of this course

Department of Nutrition and Dietetics

- DTK3000 Nutrition Counseling** 3 (2+1)
Prerequisite : PKK3208
This course encompasses the principles and theories of counseling, effective communication, interviewing and counseling skills. Diet history and nutritional status assessment in counseling process are also emphasised. Simulations of individual and group counseling for the prevention of disease are conducted based on theory of behavioral change. This course also discusses ethics and professional behavior in nutrition
- DTK3001 Current Development in Dietetics** 2 (1+1)
Prerequisite : None
This course includes preparation and organization of scientific information based on research and new developments in the field of dietetics. Critical review and discussion of current literature published in peer-reviewed journals on specific areas of dietetics are emphasized. Presentation of scientific seminar on recent issues of dietetics is also conducted
- DTK3002 Nutrition Counseling and Patient Education** 4 (3+1)
Prerequisite : DTK3216
This course encompasses principles and theories of counseling, effective communication, interviewing and counseling skills. Individual and group counseling are conducted based on standardised nutrition care process model and theories of behavior modification. Techniques in patient education are emphasized. This course also discusses ethics and professional behavior in nutrition and dietetics
- DTK3100 Principles of Food Preparation** 3 (2+1)
Prerequisite : PKK3200
This course includes introduction to the fundamentals of foods, concepts of basic food preparation as well as effect of physical, chemical and nutritional changes in cooked foods. This course also emphasizes laboratory procedures in applying the principles studied to the preparation of foods
- DTK3102 Institutional Foodservice Management I** 3 (3+0)
Prerequisite : DTK3101
This course includes systems in foodservice management. It encompasses principles and concepts of managing various foodservice operations which fulfill the design layout and equipment needs. Important components in a foodservice system, beginning from menu planning to purchasing. Entrepreneurial opportunities in foodservice are exposed
- DTK3103 Institutional Foodservice Management II** 3 (1+2)
Prerequisite : DTK3102
This course emphasises on practical training on quality and safe quantity production of foods with a control on cost and materials in garnering income. Exposure to various institutional foodservice systems are also emphasised
- DTK3210 Basic Nutritional Immunology** 2 (2+0)
Prerequisite : None
The course includes an introduction to the concept of immunity and the immune system with emphasis on nutrient components in the maintenance of normal immune system. Mechanisms of nutrients in the induction of inflammation, immune cell physiology and diet-related disease are also specified. Effects of diet and physical activity on the immune system are discussed
- DTK3211 Pathophysiology and clinical management of diseases** 3 (3+0)
Prerequisite : PKK3204
This course includes pathophysiological aspects of diseases. It also covers interpretation of biochemical and clinical aspects of diseases followed by diagnosis, medical management and pharmacological of diseases
- DTK3212 Assessment of Nutritional and Health Status of Patients** 3 (2+1)
Prerequisite : PKK3200
This course encompasses the assessment of health and nutritional status in patients as a component of Nutrition Care Process. Proficiency in the use of various methods of assessing nutritional status and health of the patient are emphasized. It also covers the interpretation of nutrition and health assessment data in comparison to standard

DTK3213	Introduction to Hospital Services	1 (0+1)
Prerequisite : None		
This course is an experience-based course that provides early exposure to clinical dietetic services. Emphasis is given to the patient record management system, and ordering diet. Applications based on the patient's nutritional status Nutrition Care Process component		
DTK3214	Practice of Professional Behaviour	1 (0+1)
Prerequisite : DTK3213		
This course is an experience-based course that provides exposure to clinical dietetic services through the application of Nutrition Care Process. Emphasis is given to practice of professional behaviour, ethics and manners in approaching patients. Individual and group counseling techniques are discussed in group discussion		
DTK3215	Practice of Professional Behaviour	1 (0+1)
Prerequisite : DTK3214		
This course is an experience-based course that emphasizes Nutrition Care Process in terms of nutritional status assessment, nutritional diagnosis, intervention strategies and nutrition monitoring. Emphasis is also given to the documentation of the Nutrition Care Process		
DTK3216	Medical Nutrition Therapy I	3 (2+1)
prerequisite : DTK3211		
This course is an introduction to medical nutrition therapy. It focuses on the relationship between diseases and the principles of therapeutic dietary modification as an essential component of nutrition care process. Case study that includes planning, preparation and evaluation of therapeutic diets is conducted		
DTK3217	Medical Nutrition Therapy II	3 (2+1)
Prerequisite : DTK3216		
This course focuses on complex diseases with the principles of therapeutic dietary modification as an essential component of patient management. Case study based on Nutrition Care Process is emphasised		
DTK3218	Medical Nutrition Therapy III	3 (2+1)
Prerequisite : DTK3217		
This course focuses on special unit and critical care with the principles of therapeutic dietary modification as an essential component of patient management. Case study based on Nutrition Care Process is emphasised		
DTK4901	Institutional Food Service Management Professional Practicum	4 (0+4)
Prerequisite : DTK3103		
This course encompasses training and work experience in various institutional food service operations. It aims to provide technical skills and critically think on the operation of food services and income generation processes in a professional and ethical manner		
DTK4902	Clinical Dietetic Professional Practicum	14 (0+14)
Prerequisite : DTK3218		
This course includes out-patient and in-patient clinical dietetic professional practicum. It develops the Medical Nutrition Therapy skills including screening, assessment, diagnosis, planning, intervention, monitoring and documentation of the patients' Nutrition Care Process. Effective individual and group counseling skills are also professionally emphasized		
DTK4903	Elective Clinical Dietetic Professional Practicum	6 (0+6)
Prerequisite : DTK3218		
This course includes an elective dietetic professional practicum in selected health care institutions. It encompasses the synthesis of experience, as well as enhances the clinical skills in Nutrition Care Process of patients in a variety of disciplines professionally and ethically		
DTK4904	Community Dietetic Professional Practicum	6 (0+6)
Prerequisite : PKK3403		
This course covers the dietetic professional practicum which emphasizes the dietetic community needs assessment and program management of community dietetics interventions. Entrepreneurial element in income generation, skills to design, conduct and evaluate community dietetic intervention program is also emphasized, professionally		
		6 (0+6)

- DTK4959 Bachelor Dissertation**
Prerequisite : None
This course encompasses planning of research, collection, analysis and interpretation of data, preparation and presentation of thesis. Emphasis is on scientific research approach and professional ethics in research
- PKK3001 Seminar: Current Issues In Nutrition And Health** 2 (1+1)
Prerequisite : None
The course covers issues and developments in the field of nutrition and health. The latest discoveries in this field are also discussed. Scientific articles writing and seminar presentations are emphasized
- PKK3002 Biostatistics and Research Methodology in Nutrition** 3 (2+1)
Prerequisite : None
This course encompasses the basics of biostatistics in scientific research in the field of nutrition and community health. Research design and planning, data analysis and interpretation, report writing and presentation of research findings are discussed
- PKK3003 Human Anatomy and Physiology** 3 (2+1)
Prerequisite : None
This course encompasses an introduction to human physiological and anatomical systems. Functions and relationships among the body's system as well as processes in the body in maintaining optimal health conditions are discussed
- PKK3100 Food, Society and Culture** 3 (3+0)
Prerequisite : None
This course covers evolutionary perspectives of human food system and its relationship to diet, health and disease. It also emphasizes dietary habits and patterns and the meaning of foods in various cultures. Determinants of dietary habits and patterns in different cultures and their implications on nutrition and health at individual, community and population levels are discussed
- PKK3104 Basic Foodservice Management** 3 (2+1)
Prerequisite : None
This course encompasses the concepts of foodservice systems management in producing quantity and quality of commercial and non-commercial foods. The important components in food production beginning from menu planning, purchasing, storage and inventory control are emphasized. Sanitary premise maintenance to ensure food safety and entrepreneurial skills are also emphasized
- PKK3105 Nutrient Composition and Analysis** 3 (2+1)
Prerequisite : None
This course discusses important elements in nutrient analysis, and its suitability in the field of nutritional science. Important elements in nutrient analysis includes sampling, quality control, data presentation, and use of nutrient data in various nutrition applications are emphasised. The determination of macro- and micronutrient contents are carried out
- PKK3107 Food Safety for Consumer Health** 3 (2+1)
Prerequisite : None
This course discusses food safety aspect includes food poisoning, handling, preparation, processing and storage in food services. Hazard Analysis Critical Control Point (HACCP), food additives and nutritional labelling, roles of government agencies, food industries and consumers to ensure food safety are discussed
- PKK3108 Laboratory Techniques in Nutritional Research** 2 (1+1)
Prerequisite : PKK3105
This course discusses the concepts and laboratory techniques in nutrition research. Students will carry out sampling, keeping record and sample and data analysis. The principles and application of various laboratory techniques and instrumentations are also discussed
- PKK3200 Principles of Human Nutrition** 3 (3+0)
Prerequisite : None
This course covers the basic principles of human nutrition. Health problems related to nutrients and the importance of Recommended Nutrient Intake (RNI), Healthy Plate and Malaysian Dietary Guidelines are emphasized

- PKK3203 Nutrition Throughout the Life Cycle** 3 (3+0)
Prerequisite : PKK3200
This course encompasses human growth from conception to adulthood as well as nutrition as an important environmental influence on growth and development especially during critical periods. Biological and behavioural implications of malnutrition on growth and development are discussed
- PKK3204 Nutritional Biochemistry** 4 (3+1)
Prerequisite : PKK3200
This course encompasses biochemistry and metabolism of nutrients and their interactions in maintaining body homeostasis. Nutrient imbalance and its effect on body metabolism, biochemical indicators of nutritional disorders and inborn errors of metabolism are emphasized
- PKK3206 Genetics and Nutrition** 2 (2+0)
Prerequisite : None
This course covers fundamental knowledge in genetics, basic concept of genes and its components, inheritance and overview of genetic technologies which have been developing currently. Students also will be exposed to nutrigenomic and nutrient and gene interactions. Implications on health and disease are discussed
- PKK3207 Clinical Nutrition I** 3 (3+0)
Prerequisite : None
This course explains the biochemical pathway in diagnosis of nutrition-related diseases such as diabetes, heart disease, cancer, anaemia and standard procedure that need to be followed. Students also learn the concepts of pharmacology, drug classification, their action as well as the side effects. Data from biochemical assessment will be used to select the suitable management of the diseases
- PKK3208 Clinical Nutrition I** 3 (3+0)
Prerequisite : None
This course encompasses physiological aspects of nutrition-related diseases and the relationship between disease and nutrient involved. Principles and concepts of nutritional therapy as guidelines in the planning of therapeutic diets and implications of drugs on disease treatment are discussed
- PKK3302 Basic Epidemiology** 3 (3+0)
Prerequisite : None
This course covers the basic principles of epidemiology in community and clinical health, epidemiologic methods in research and statistical methods used in epidemiology
- PKK3303 Maternal and Child Health** 3 (2+1)
Prerequisite : PKK3203
This course encompasses maternal and child health which includes the interdependence between mothers and children, optimal growth and development of children through nutrition and health. The need for maternal and child health services and programmes at national and international levels to improve their health status are discussed
- PKK3304 Behaviour and Health** 3 (3+0)
Prerequisite : None
This course encompasses knowledge on the relationship between behavior and health conditions. It will also focus on predisposing, enabling and reinforcing factors to behavior. Research methods in health and behavior and associations between behavioral factor and health status are emphasized
- PKK3401 Assessment of Nutritional and Health Status** 3 (2+1)
Prerequisite : PKK3200
This course encompasses the assessments of health and nutritional status of individuals, groups and populations. Anthropometric measurements, analysis of biological samples, clinical examination, dietary methods and study of environmental influences, the quantitative and qualitative assessments are emphasized
- PKK3406 Nutrition and Health Promotion I** 3 (2+1)
Prerequisite : None
This course encompasses concept, definition and development of health promotion, as well as planning, implementation and evaluation processes of nutrition and health promotion programs

- PKK3407 Nutrition and Health Promotion II** 2 (0+2)
 Prerequisite : PKK3406
 This course encompasses concept, principle and main functions of management of nutrition and health program. Activities related to planning, implementation and evaluation of nutrition and health promotion programs in schools, communities and work sites will be conducted
- PKK3408 Food and Nutrition Policy** 3 (3+0)
 Prerequisite : None
 This course encompasses food and nutrition policies at national and international levels. It also emphasizes global nutrition challenges in the development of food and nutrition policy. Policy and plan of actions related to food and nutrition at national level are discussed
- PKK4902 Industrial Training** 18 (0+18)
 Prerequisite : None
 This course encompasses knowledge on problems of the community and to identify means of overcoming them. Students will be placed in agencies related with nutritional and health community programs and be given work experiences so that students have an understanding and will be able to carry out activities that have been planned by the agency/organization
- PKK4959 Bachelor Dissertation** 12 (0+12)
 Prerequisite : None
 This course covers the preparation of research proposal, implementation and scientific writing of research project related to nutrition and community health. Emphasis is given on the reporting and presentation of research findings
- PKK4202 Nutrition in Adolescence** 3 (3+0)
 Prasyarat : PKK3203
 This course encompasses the developmental process and factors influencing the nutritional and health status of adolescents. The assessments of nutritional status as well as strategies to improve, maintain and promote the health status of adolescents are emphasized
- PKK4205 Nutrition, Physical Activities and Health** 3 (2+1)
 Prerequisite : None
 This course encompasses the aspects of physical activity and exercise, and their relationship with nutrition and health. Assessment of physical activity levels of selected groups will be measured. Menu planning and the relationship between sport activities and nutrition will also be emphasized
- PKK4206 Sports Nutrition** 3 (3+0)
 Prerequisite : PKK4205
 This course discusses concept of sports, exercise and fitness. It describes the roles of nutrients during and after training. Interrelation between nutrition, athletic performance and recovery from exercise and training will be explained. Issues and controversies related to sport nutrition such as role of dietary supplements, hormonal supplements, sports drinks, vitamins and ergogenic aids will be critically evaluated
- PKK4307 Consumer Health** 3 (3+0)
 Prerequisite : None
 This course encompasses the concept and issues of consumer health. The decisions and selections of consumer health products, services and facilities as well as factors affecting choices are explained. Consumer law and protection with respect to health products and services are also discussed
- PKK4401 Geriatric Health and Nutrition** 3 (3+0)
 Prerequisite : None
 This course covers the impact of aging process on physical and physiological changes of the elderly. Factors affecting nutritional status and methods of assessment of nutritional and health status of the elderly are discussed. The main age-related health and nutritional problems among the elderly are also emphasized

PKK4403 Community Nutrition Practicum

4 (0+4)

Prerequisite : PKK3407

This course encompasses implementation of activities related to health to increase awareness and understanding of the community on the importance of nutrition and health in daily lives. Knowledge in nutrition and community health is applied through joined activities with the community

Department of Medicine

- SPK3011 Early Clinical Experience (I, II, III, IV)** 37 Hour
- Prerequisite : None
- This course encompasses the application of basic medical sciences on patient history taking, physical examination which also incorporates communication and clinical skills, the principles of ward procedures and patient management in the ward
- SPK3914 Introductory Orthopedics** 2 Weeks
- Prerequisite : None
- This course encompasses basic history taking of orthopedic patients based on the part of the limb involved and physical examination of the musculoskeletal system. It also covers the approach of accurate diagnosis, relevant investigations and treatment of patient
- SPK3972 Senior Family Medicine** 4 Weeks
- Prerequisite : None
- This course encompasses a practice of medicine in primary care setting through attachment with experienced primary health care providers in primary care clinics
- SPK4912 Senior Orthopedics** 7 Weeks
- Prerequisite : None
- In the fifth year, the students will be posted to the Senior Orthopaedics. The rotation is of 8 weeks duration. Teaching in this course will consist of lectures, seminars, bedside teaching, ward rounds, clinical sessions in Orthopaedic outpatient clinic and observing procedures in operation theatres. Students are also expected to perform ward work under supervision. During this rotation, the student will also be posted to the Accident & Emergency, Physiotherapy, Occupational Therapy and Orthotic Departments. Students will be supervised by the lecturers from the Orthopaedic Department, UPM and Medical Officers/ Specialists/Consultants of Institute Orthopaedic and Traumatology, Serdang Hospital
- SPK4913 Accident and Emergency** 1 Weeks
- Prerequisite : None
- This course encompasses the principles of early management of emergency cases e.g. trauma, acute asthma, acute myocardial infarction and disaster emergency. It also covers the importance of immediate management of emergency cases to prevent worsening of the patient's condition, communication and continuity of management with other clinical units
- SPK4925 Sports Medicine** 1 Weeks
- Prerequisite : None
- The course encompasses the broad spectrum of sports medicine (sports injuries, treatment and rehabilitation) and sports science (exercise physiology, sports nutrition, sports psychology and physical conditioning)
- SPK3921 Introductory Medicine** 14 Weeks
- Prerequisite : None
- The course encompasses good history taking and systematic examination of the central and peripheral nervous system, the respiratory system, the gastrointestinal system, the urinary system, the cardiovascular system, the endocrine system and the joints. Basic ward procedures such as performing venepuncture, setting up a drip and recording ECGs are also covered
- SPK4922 Senior Medicine** 10 Weeks
- Prerequisite : None
- The course encompasses finer aspects of history taking and physical examination, rational approach on investigation and management of clinical problems, therapeutic aspects of medical practice and therapeutic procedures in the wards

- SPK3923 Health Care of the Elderly** 3 Weeks
 Prerequisite : None
 This course encompasses aging demography, assessment of elderly patients, principles of geriatric medicine, psychological problems in the elderly, falls, immobility and rehabilitation, death and dying. It also covers ethics and professionalism in managing the elderly as well as the importance of healthy ageing
- SPK3924 Radiology** 1 Weeks
 Prerequisite : None
 The course encompasses the basics in different imaging modalities which include radiation hazards and protection, the aspect of examination procedures, their clinical indications and contraindications. It also covers the interpretation of both normal and abnormal radiological images
- SPK3937 Basic Life Support** 20 Hours
 Prerequisite : None
 This course encompasses basic aspects of cardiopulmonary resuscitation in adults and children. Students also learn the use of medications and equipment for resuscitation in a hospital setting
- SPK3961 Introductory Psychiatry** 8 Weeks
 Prerequisite : None
 This course encompasses fundamental knowledge and clinical aspects of psychiatric disorders, interview techniques and history taking, recognition of symptoms of major psychiatric disorders and understanding of factors contributing to the cause of mental illness, case formulation and management.
- SPK3971 Introductory Family Medicine** 2 Weeks
 Prerequisite : None
 This course introduces a practice of primary care medicine, the spectrum of diseases and patients seen in primary care setting and principles of family medicine
- SPK3991 Clinical Attachment** 2 Weeks
 Prerequisite : None
 This course encompasses attachment to discipline of interest in health or hospital settings to gain experience for personal and professional development
- SPK3931 Introductory Surgery** 14 Weeks
 Prerequisite : None
 This course encompasses principles of surgical practice within a hospital setting, clinical aspects, diagnosis, investigations and management of common surgical disorders such as abdominal, peripheral vascular disease, breast, thyroid, genito-urinary, and general surgical diseases
- SPK4932 Senior Surgery** 8 Weeks
 Prerequisite : None
 The course encompasses finer aspects of history taking and physical examination, rational approach on investigation and management of clinical problems, therapeutic aspects of surgical practice and therapeutic procedures in the clinics, wards and operation theatres
- SPK3933 Otorhinolaryngology** 3 Weeks
 Prerequisite : None
 This course encompasses the anatomy and physiology of the head and neck, diseases of the ear, diseases of the nose and paranasal sinuses, diseases of pharynx and larynx, diseases of the neck and oral cavity, and allergies
- SPK3934 Ophthalmology** 3 Weeks
 Prerequisite : None
 This course encompasses history taking, physical examination and management of common ocular problems, including those caused by infection, trauma, hereditary disorders, cataract, glaucoma and retinal abnormalities

- SPK4935 Forensic Medicine** 40 Weeks
 Prerequisite : None
 This course encompasses basic knowledge on forensic pathology and guidelines to perform autopsy on common cases such as sudden death, accidents, asphyxia as well as medicolegal cases, preparing medicolegal case report and attending mock court
- SPK4936 Anaesthesiology** 1 Weeks
 Prerequisite : None
 This course encompasses basic clinical aspects of anaesthesiology, pre-anaesthetic preparation of patients, critical care medicine and pain medicine, with attention to ethics and professionalism. It also covers the management of patients in the perioperative period as a whole and basic management for the critically ill
- SPK3941 Introductory Pediatrics** 10 Weeks
 Prerequisite : None
 This course encompasses introduction to general paediatrics, basic skills of history taking and reinforcement of basic examination techniques in the context of paediatric patients. The student may also be exposed to various disciplines of paediatric subspecialties and visit to a community-based maternal and child health centre
- SPK4942 Senior Pediatrics** 5 Weeks
 Prerequisite : None
 The course encompasses history taking, physical examination of paediatric patients, rational approach on investigation as well as management of clinical problems and therapeutic procedures in the clinics and general paediatric wards. The course also covers areas of neonatology
- SPK3951 Introductory Obstetrics and Gynaecology** 10 Weeks
 Prerequisite : None
 This course encompasses of history taking, physical examination of patient, relevant approach of investigation, management of clinical situation with therapeutic procedure in clinic, antenatal ward, gynaecological ward, labor room and operative room
- SPK4952 Senior Obstetrics and Gynaecology** 5 Weeks
 Prerequisite : None
 The course encompasses finer aspects of history taking and physical examination of obstetrics and gynaecology patients, rational approach on investigation and management of clinical problems in obstetrics and gynaecology, therapeutic aspects of obstetrics and gynaecology practice and therapeutic procedures in the clinics, wards, labour rooms and operation theatres
- SPK4962 Senior Psychiatry** 2 Weeks
 Prerequisite : None
 This course encompasses psychosocial aspects of physical illnesses through liaison psychiatry, managing dying patients and handle cases in emergency psychiatry. It also covers the concept of liason psychiatry and emphasises on the role of multidisciplinary teams in managing patients and in the development of Liason Psychiatry services in hospitals
- SPK3981 Community Medicine** 6 Weeks
 Prerequisite : None
 The course encompasses the practices and activities of public health medicine activities in health clinic, District Health Office and District Hospital which include disease prevention, health promotion and patient care. Evaluation of the community health status and implementation of health intervention programme will also be covered in this course
- SPK3982 Community Follow-Up** 20 Weeks
 Prerequisite : None
 This course covers the impact of illness to the physical, social and psychological well being of the patient, their family and the community at large which is based on medical ethics and professionalism in the patient's management. It also covers the involvement of external agencies in the aspect of patient care

- SPP3111 Professional Development** 10 Hour
Prerequisite : None
This course encompasses the social and professional roles of a doctor as well as the importance of professional skills in medicine, involving doctor-patient relationship, professional relationship with others, corporate culture in the Ministry of Health, working with other genders, holistic assessment, as well as ethical and cultural issues in medicine
- SPP3121 Communication Skills** 9 Hour
Prerequisite : None
This course encompasses core concepts of effective communication as a doctor including patient education. Handling communication with terminally ill patients as well as their family members is also emphasized
- SPP3131 Behavioural Science** 21 Hour
Prerequisite : None
This course encompasses the normal human development through a psychological perspective from the stages of infancy to elderly, psychosocial effects of chronic illness, the role of family, stress and the process of mental activities such as memory, perception, sleep, motivation, conditioning and emotion
- SPP3212 Cell and Excitable Tissue** 67 Hour
Prerequisite : None
The course encompasses the organization, basic functions of tissues and organs, as well as cellular communication. It also includes pharmacological effects on neurotransmitters
- SPP3223 General Anatomy And Embryology** 27 Hour
Prerequisite : None
This course encompasses the gross and histological aspects of musculoskeletal system, circulatory system which includes cardiovascular and lymphatic systems, central nervous system, peripheral nervous system and autonomic nervous system, as well as general embryology
- SPP3231 Molecular-Based Medicine** 43 Hour
Prerequisite : None
This course encompasses the basic biochemistry of proteins and enzymes involved in major metabolic pathways, as well as diseases caused by metabolic enzyme deficiencies and the relationship between protein stability and biological activity. This course also covers intermediate and energy metabolisms. Disorders of metabolism and their related clinical significance is also focused on
- SPP3241 Gene Expression** 14 Hour
Prerequisite : None
The course encompasses the structure and functions of genes, mechanisms of DNA replication, mRNA transcription, gene splicing and protein translation, mutations and mutagenic agents and their influence on DNA and the cell, as well as aspects on application of molecular biology techniques in clinical diagnostics
- SPP3251 Human Genetics** 18 Hour
Prerequisite : None
This course encompasses the fundamental concepts and technological advances in the study of human genetics pertaining to medical practice, which includes cytogenetics, molecular genetics, biochemical genetics, clinical genetics, ethical issues and genetic counseling. The use of genetic methods including linkage, mutational and pedigree analyses in a small group of specific diseases as examples are also highlighted
- SPP3273 General and Biochemical Pharmacology** 22 Hour
Prerequisite : None
This course encompasses the general principles of pharmacology, concepts on drug pharmacodynamics and pharmacokinetics, as well as the principles of Rational Prescribing Practice. The methods for testing toxicity of drugs, and the genetic influences on pharmacokinetics and pharmacodynamics are also described. Prescribing drugs to elderly and pediatric patients are also focused on

- SPP3311 Haematology** 45 Hour
Prerequisite : None
The course encompasses the changes which occur to the organization, basic function and morphology of blood cells and their components in common haematological disorders. This course also emphasizes diagnostic tests and management of these disorders
- SPP3321 General Pathology** 35 Hour
Prerequisite : None
The course encompasses the principles of basic pathology, and relates these principles with the knowledge of anatomy, physiology, biochemistry, microbiology, parasitology, pharmacology, radiology and clinical manifestation. Lethal and sublethal tissue injuries, necrosis and apoptosis, inflammations, tissue healing and repair, as well as the behaviour of neoplastic cells are also emphasised
- SPP3341 Immunology** 39 Hour
Prerequisite : None
This course encompasses the concept of immunity, an overview of the immune system, the nature of antigen and cell recognition, role of the immune system in inflammation, response to pathogens, mechanisms of tissue damage, allergy, autoimmunity, organ transplantation and rejection, as well as immunological consequences due to immunodeficiencies
- SPP3351 Medical Microbiology** 52 Hour
Prerequisite : None
This course encompasses the basic knowledge of medically important microorganisms, their structures, genetic materials and pathogenicity in subdisciplines of bacteriology, virology and mycology. It also covers the classification, types, function and transmission of microorganisms. An introduction on antimicrobial agents as well as the prevention and control of infectious diseases are also included
- SPP3371 Medical Parasitology and Entomology** 37 Hour
Prerequisite : None
This course encompasses the medical and public health aspects of parasitic and vector borne diseases, covering biology and life cycle, epidemiology, pathology, clinical manifestations, diagnosis, treatment, prevention and control of infection in the individual patient and the community
- SPP3424 Public Health Medicine** 27 Hour
Prerequisite : None
This course encompasses basic concepts, principles and issues related to public health including a holistic approach to health promotion and health care delivery systems.
Emphasis is also given to the influence and roles of the individual, family and community on the health status and disease pattern
- SPP3425 Epidemiology** 46 Hour
Prerequisite : None
This course encompasses the basic concepts and principles of epidemiology for application in understanding diseases such as communicable diseases, non-communicable diseases, emerging and re-emerging diseases, and cancers. It also covers basic epidemiological study designs and clinical trials in terms of methodology, advantages and limitations, measurement of risks and its uses, as well as assessment of causation, bias and confounders
- SPP3512 Musculoskeletal System** 94 Hour
Prerequisite : None
The course encompasses the anatomy, physiology, pathology, pharmacology and clinical aspects of the musculoskeletal system, involving the muscles, bones and joints. It also covers the approach to make a diagnosis, and interpretation of clinical findings such as pain, bone fractures, joint dislocations and nerve injuries

- SPP3522 Urinary System** 55 Hour
Prerequisite : None
This course encompasses the anatomy, physiology, pathology and pharmacology of the urinary system, including the structure and functions of various parts of nephron. It also covers the hormonal mechanisms affecting the renal functions, and the role of kidneys in the control of blood pressure and the maintenance of acid-base balance. Common urinary disorders such as glomerular diseases, neoplasia and obstruction of urinary tract and their management are also covered
- SPP3532 Cardiovascular System** 79 Hour
Prerequisite : None
This course encompasses the disciplines of anatomy, physiology, pathology, and pharmacology of the cardiovascular system. Clinical manifestations of cardiovascular diseases, approach to diagnosis, principles of treatment and preventive measures of disease are also given emphasis
- SPP3542 Respiratory System** 47 Hour
Prerequisite : None
This course encompasses the anatomical structures and functions of the respiratory system, and related pathological conditions such as hypoxia, respiratory failure and in unusual environment. It also includes clinical manifestations, diagnosis and treatment of respiratory system related diseases
- SPP3552 Alimentary System and Nutrition** 84 Hour
Prerequisite : None
This course encompasses the disciplines of anatomy, physiology, pathology and pharmacology related to the alimentary system. Clinical manifestations, the diagnostic process and principles of treatment related to alimentary diseases are also emphasized. This course also covers nutritional aspects and clinical importance of nutrients in maintaining optimal health
- SPP3562 Endocrine System** 46 Hour
Prerequisite : None
The course encompasses the disciplines of anatomy, histology, physiology, pathology and pharmacology related to the endocrine system, including developmental anatomy and inter-related functions between the hypothalamus, pituitary, thyroid, parathyroid, and adrenal glands. This course also differentiates the normal and abnormal aspects of the endocrine system which involves hormone secretion , hormonal axis, and regulation of hormone release
- SPP3572 Reproductive System** 60 Hour
Prerequisite : None
The course encompasses the introduction to anatomy, histology, physiology, pharmacology, pathology and clinical aspects of the male and female reproductive system. Aspects related to child birth, foetal physiology, newborn infants, conception, abortion, contraception and sexually transmitted diseases are also emphasized
- SPP3582 Central Nervous System** 96 Hour
Prerequisite : None
This course encompasses the anatomy and physiology of the brain and spinal cord, including their normal functions and the disorders involving their various parts at cellular and molecular levels. It also covers neurotransmitters and their involvement in normal conditions and major clinical disorders. This course also emphasizes the knowledge of drugs for treatment of common CNS disorders, including the mechanisms of action, clinical efficacy and limitations
- SPP3591 Learning Based Problem (I, II, III, IV)** 66 Hour
Prerequisite : None
This course encompasses the application of knowledge in basic medical sciences through problem based learning, which include the development of critical thinking abilities, deductive reasoning, team work and information sharing

SPP3613 Medical Statistics

48 Hour

Prerequisite : None

This course encompasses the basic principles in medical statistics, descriptive statistics, statistical tests for comparing means, chi-square tests and Fisher's exact test, correlation and simple linear regression test, and non-parametric tests

SPP3621 Research Methodology and Project

10 Weeks

Prerequisite : None

This course encompasses the basic concepts of research methodology and project, including the use of biostatistics, research designs, proposal preparation, data analysis, scientific write-up and project presentation

Department of Nursing and Rehabilitation

- NUR3001 Research and Statistic** 3(2+1)
Prerequisite : None
This course, which is based on the scientific research process, encompasses the concepts, methodology, and implementation of quantitative and qualitative researches. The importance of ethics, literature search and scientific writing is emphasised
- NUR3002 Teaching in Nursing** 2(1+1)
Prerequisite : None
This course is to equip students of nursing with fundamental teaching skills so that, they may fulfill their teaching role effectively, to clients, their families, colleagues, other health workers and community
- NUR3003 Perspective of Nursing Theories** 2(2+0)
Prerequisite : None
This course encompasses theories and nursing process in professional nursing practice. Topics covered include development of theory in nursing and methods of critique in nursing theories. Students are required to relate nursing theories and nursing process
- NUR3104 Biochemistry and Pharmacology** 3(2+1)
Prerequisite : None
This course introduces the students to biochemistry and pharmacology. Biochemistry covers the biochemical nature of membranes and physio-chemical properties as well as functions of the living system. Pharmacology covers the basic concepts of pharmacokinetic and pharmacodynamic as well as drugs in use currently
- NUR3201 Nursing Concepts and Practice I** 3(2+1)
Prerequisite : None
Kursus ini merangkumi konsep jagarawatan holistik dan menggalak tindak balas fisiologi normal. Pelajar akan mempraktik kemahiran jagarawatan holistik dalam pelbagai lapangan klinikal
This course encompasses the concepts of holistic care and the promotion of normal physiologic responses. Students will practice holistic nursing skills in different clinical settings
- NUR3202 Nursing Concepts and Practice II** 3(2+1)
Prerequisite : None
This course encompasses the concepts and practice of medication administration, wound care and clients psychological responses management. Students need to demonstrate nursing skills in various clinical settings
- NUR3203 Adult Client Care I** 3(2+1)
Prerequisite : None
This course encompasses the nursing care of adult clients with altered functions of the cardiovascular, respiratory, renal system and hematology. It also explores the pathophysiological process and psychological responses as a result of the altered functions. Students will then apply theory to practice in the clinical setting
- NUR3204 Adult Client Care II** 3(2+1)
Prerequisite : None
This course encompasses principles of pre, intra and post operative as well as basic emergency care. The nursing care of clients with altered functions of ophthalmic, ear, nose and throat, immune system are also discussed
- NUR3207 Adult Client Care III** 3(2+1)
Prerequisite : None
This course encompasses the nursing care of adult clients with altered functions of the musculoskeletal, gastrointestinal, nervous and endocrine system. It also explores the pathophysiological process and psychological responses as a result of the altered functions
- NUR3208 Clinical Assessment** 3(2+1)
Prerequisite : None
This course encompasses health assessment skills of clients in the clinical field. Students are required to apply the communication skills and critical reflection when performing a holistic physical health assessment. Students are also required to plan and implement nursing care based on assessment findings

- NUR3308 Personal and Professional Development in Nursing** 3(3+0)
Prerequisite : None
This course emphasizes the application on the principles of communication, critical thinking and reflection in the clinical nursing practice. Topics covered include various roles of nurses, current issues, management, leadership, counselling, ethics, rules and law in nursing practice
- NUR3307 Human Behavioral Science** 3(3+0)
Prerequisite : None
This course introduces the basic principles of behavioural sciences in influencing human behaviour especially in the medical and nursing context. This encompasses human development from the infancy to elderly stage, related basic psychology and individual and group behavior
- NUR3403 Community Health Care** 3(2+1)
Prerequisite : None
This course encompasses various aspects of community health and comprehensive community health nursing practice to individual, family and community through the life span. Issues on the care of antenatal mother, children and adults also discussed. Students apply the knowledge and skill in family health nursing. Students are required to visit the community agencies and prepare a report on the services provided
- NUR3404 Primary Health Care and Health Promotion** 3(2+1)
Prerequisite : None
This course encompasses concepts of primary health care and health promotion. Topics include community development and community behavioural models. Students are required to prepare health educational materials and implement health promotion activities
- NUR3405 Community Health Intervention** 3(1+2)
Prerequisite : None
This course encompasses the community health assessment focuses current trends of diseases in community and method of evaluation, plan and implementation the community health intervention. Students are required to demonstrate skills in problem solving and collaboration in community health nursing
- NUR3503 Care of the Sick Child** 3(2+1)
Prerequisite : None
This course encompasses the nursing care management of sick children. Students are required to apply theoretical concepts and skills to the care of children with various disorders in clinical field
- NUR3504 Care of the Critical Client** 3(2+1)
Prerequisite : None
This course encompasses conditions such as cardiovascular, respiratory, shock and nosocomial infection in critical care. The focus will be on communication skill
- NUR3506 Obstetric and Gynaecology** 3(2+1)
Prerequisite : None
This course encompasses women’s reproductive health and gynaecological conditions. Students will provide care to women during antenatal, delivery, puerperium, and those who undergo gynaecological interventions
- NUR3520 Mental Health Care** 2(1+1)
Prerequisite : None
This course encompasses basic theories of mental health care. Topics include mental health disorders, lifestyle dysfunctions, therapeutic interventions and alternative therapy. The students are required to provide nursing care in the hospital and community by applying ethics on mental health care
- NUR3508 The Sick Child and Health Care I** 4(1+3)
Prerequisite : None
This course strengthens the role of paediatric nurses in the care of paediatric clients with various related organ disorder

- NUR3509 The Sick Child and Health Care II** 4(1+3)
Prerequisite : NUR3508
This course strengthens the role of paediatric nurses in the care of paediatric clients with altered function of the related system and infections
- NUR3510 Community Health and Community Healthcare** 4(1+3)
Prerequisite : None
This course encompasses concepts of maternal and child health nursing. Topics covered include care of high risk mothers, screening in women health, pre-school child health, school health service and maternal and child nutrition. Students will be placed in health centres to practice skills in maternal and child health nursing
- NUR3511 Health Programme and Community Health Care Issues** 4(1+3)
Prerequisite : NUR3510
This course strengthen the knowledge and practice in community nursing care. It compasses various concepts and services related to community health issues, communicable diseases program, environmental and occupational health. Nursing care of children with special needs is emphasized. Mental and social issue is also discussed. Students will be placed in community health centers to practice related skills
- NUR3521 Care of The Older Person** 3(2+1)
Prerequisite : None
This course encompasses the process of ageing and implications of demography changes on health care of the elderly. Issues on changes and its implications on the health of the elderly are discussed. The students apply their knowledge and skills in providing nursing care to the elderly in hospital and community setting. This course critically examines various issues related to nursing care and health provisions by government and non-government agencies, caregivers and the community
- NUR3522 Care Of Cancer and HIV Clients** 2(1+1)
Prerequisite : None
This course encompasses nursing care of cancer, HIV/AIDS. Students are required to manage nursing care at the hospital and community
- NUR3516 Critical Care I** 4(1+3)
Prerequisite : None
This course emphasizes on the principles of critical management that strengthens students' skills in the care of the critical client applying the psychosocial approach in the field of trauma, intensive care and haemodialysis
- NUR3517 Critical Care II** 4(1+3)
Prerequisite : NUR3516
This course strengthens care of the critical in the Accident and Emergency Department and Intensive Care Unit. Students will also be exposed to the theoretical and practical aspects of pre and post cardiac surgery care
- NUR3518 Medical-Surgical Care I** 4(1+3)
Prerequisite : None
The student will apply knowledge and skill pertaining to client management through intensive practice in the medical and surgical wards. This course focuses on the care of clients with medical and surgical emergencies
- NUR3519 Medical-Surgical Care I** 4(1+3)
Prerequisite : NUR3518
The student will apply knowledge and skill pertaining to client management through intensive practice in the medical and surgical wards. This course focuses on the care of clients with medical and surgical emergencies
- NUR3911 Clinical Practice I** 3(0+3)
Prerequisite : NUR3201
This clinical nursing skill I encompasses holistic nursing care in the hospital. Topics covered include therapeutic communication, standard precaution and nursing process

- NUR 3912 Clinical Practice II** 3(0+3)
 Prerequisite : NUR3911
 This clinical nursing skill II encompasses holistic nursing care in the hospital. Topics covered include drug administration, principal of aseptic technique and basic wound management
- NUR 3913 Clinical Practice III** 3(0+3)
 Prerequisite : NUR3912
 Clinical course III covers nursing care of the adult clients with health problems related to altered cardiovascular, respiratory, renal and hematology systems. Students are required to apply their knowledge of the pathological process and exhibit appropriate behavioral reaction in the care of their clients
- NUR3914 Clinical Practice IV** 3(0+3)
 Prerequisite : NUR3913
 Clinical course IV covers the care of clients with altered functions of ophthalmic, ear, nose, throat, immune system, trauma and emergency. Students will be required to apply the knowledge of pathophysiology, behavioral science and the principles of pain management in delivering nursing care. This course also covers care of clients pre, intra and post surgery
- NUR3915 Clinical Practice V** 4(0+4)
 Prerequisite : NUR3914
 This clinical training course includes a description of the concepts relevant to the nursing care practice client musculoskeletal, endocrine, gastrointestinal, neurological, obstetric and gynaecology
- NUR3916 Clinical Practice VI** 4(0+4)
 Prerequisite : NUR3915
 This clinical course focuses on the care of paediatric, oncology, community, and critical client. Students are required to apply counseling, critical thinking, creative and reflection in delivering their nursing care
- NUR3917 Clinical Practice VII** 3(0+3)
 Prerequisite : NUR3916
 This clinical course further strengthens the student's nursing care ability in medical, surgical, and psychiatric clients
- NUR3918 Clinical Practice VIII** 3(0+3)
 Prerequisite : NUR3917
 This clinical course covers elderly care related concepts. Students are required to practice ward management and care for the elderly
- NUR4999 Final Year Project** 6(0+6)
 Prerequisite : NUR3001
 This course covered the preparation of a research project proposal, its implementation, and data analysis with research ethics consideration. Students are required to prepare a thesis and make an oral presentation

- SBP3111 Human Physiology** 4 (3+1)
Prerequisite : None
This course encompasses all the aspects of human physiology. The relationship of organ functions and physiological process in maintaining homeostasis are discussed. Interpretation of laboratory tests from each organ function is also emphasized.
- SBP3116 Human Organization, Integumentary and Musculoskeletal Systems** 3 (2+1)
Prerequisite : None
This course encompasses the introduction to medical anatomy, body organization and homeostasis, the structure, organization and functions of the integumentary, skeletal and muscular systems.
- SBP3117 Nervous and Endocrine Systems** 3 (2+1)
Prerequisite : None
This course encompasses the structure, organization and functions of the nervous and endocrine systems and relate the systems to the homeostatic mechanism in the human body.
- SBP3118 Cardiovascular, Lymphatic and Respiratory Systems** 3 (2+1)
Prerequisite : None
This course encompasses the structure, organization and functions of the cardiovascular, lymphatic and respiratory systems and relate the systems to the homeostatic mechanism in the human body.
- SBP3119 Digestive, Urinary and Reproductive Systems** 3 (2+1)
Prerequisite : None
This course encompasses the structure, organization, functions, regulation of the digestive, urinary, acid-base balance and reproductive systems. The reproductive processes from fertilization and development to birth as well as lactation are also discussed.
- SBP3120 Radiobiology** 2 (2+0)
Prerequisite : None
This course encompasses the properties, detection, measurement, identification and biological effects of radioactive materials and ionic radiation on organism. Biochemical, environment and chemicals factors affecting the organism towards radiation are to discussed. This course allows students to understand the safety use of radioactive materials and ionic radiation in research and medicine.
- SBP3201 Basic Medical Biochemistry** 3 (2+1)
Prerequisite : None
This course covers the changes in biochemical processes, including the structural, chemical, properties and functional aspects of cellular constituents. The metabolism and regulation of biomolecule are also discussed.
- SBP3202 Clinical Biochemistry** 3 (2+1)
Prerequisite : None
The course encompasses understanding of pathogenesis of diseases and changes in clinical biochemistry parameters for disease diagnosis. Techniques, analysis principles of clinical sample, data interpretation and validation for disease diagnosis are also discussed.
- SBP3301 Pharmacology** 3 (2+1)
Prerequisite : None
This course covers the principles and basis of pharmacology and utilization of drugs for treating various diseases. Emphasis is on the effects of drugs on a biological system, mechanism and location of action, therapeutic uses and side-effects/adverse effects drug reactions used in medicine.
- SBP3302 Toxicology** 3 (2+1)
Prerequisite : None
This course covers the usage of drugs as therapeutic agents, mechanism of action, toxicity and drug stability. Factors such organic chemistry, biochemistry and basic physiology and pharmacology of groups of drugs are discussed. Emphasis is given on therapeutic utilization and specific actions of drugs.

- SBP3303 Molecular toxicology** 3 (3+0)
 Prerequisite : SBP3302
 This course provides understanding of important principles in toxicology and the effect of poisons in the mammalian system in healthy and diseased conditions. Students will learn techniques to analyse and identify the poison for the diagnosis including toxicology data interpretation.
- SBP3403 Basic Medical Microbiology** 3 (2+1)
 Prerequisite : None
 This course covers basic knowledge of microbiology and basic techniques in microbial cultivation and diagnosis. The development of diseases also will be discussed.
- SBP3404 Medical Parasitology and Entomology** 3 (2+1)
 Prerequisite : None
 This course encompasses the pathophysiology, immunology, diagnosis, chemotherapy and prevention of the parasitic diseases. The entomology section covers arthropods as vectors in disease transmission, their tissue invasion and injuries. Control, diagnosis and prevention will also be discussed.
- SBP3408 Basic Immunology** 2 (2+0)
 Prerequisite : None
 This course covers the fundamental concepts of immunology, structure and function of major molecules of the immune system and regulation of innate and adaptive immunity.
- SBP3409 Advanced Immunology** 2 (1+1)
 Prerequisite : SBP3408
 This course encompasses molecular events during immune response. Immunopathogenetic mechanisms of immune disease, tolerance, autoimmunity and tumor immunology are discussed.
- SBP3410 Cell and Tissue Culture** 3 (2+1)
 Prerequisite : None
 This course introduces the fundamental concepts of mammalian cell and tissue culture. Cell culturing procedures including materials, aseptic technique and sterilization, analysis of cell growth, differentiation, death and contamination are also discussed.
- SBP3411 Introductory Cell Biology** 2 (2+0)
 Prerequisite : None
 The course covers the molecular aspects of main cellular processes that are essential for regulating cell function in multicellular organisms. These cellular processes include protein synthesis and turnover, membrane trafficking, cell death and renewal, cell motility, as well as communication between cells and their microenvironment, with emphasis on the mechanisms and the role of various cellular structures and molecules in the regulation of these processes.
- SBP3502 Human Genetics** 3 (2+1)
 Prerequisite : None
 This course encompasses an introduction to the application of basic genetic principles to the study of human health and disease. The basic human genetics include Mendelian and population genetics, and basic clinical applications. The importance and implications of genetic disease at population and individual families level are also discussed.
- SBP3503 Applied Molecular Biology** 3 (2+1)
 Prerequisite : None
 This course encompasses the application of molecular biology, specific approaches including gene cloning, DNA manipulation and analysis of gene and protein, recent techniques and tools and current issues in molecular biology area such as stem cell and transgenic.
- SBP3504 Applied Cytogenetic Technology** 3 (2+1)
 Prerequisite : None
 This course comprises of conventional and molecular cytogenetics techniques used either in clinical laboratory or research facilities. Practical aspects and the importance of technologies particularly as a diagnostic tool in medical fields are discussed

- SBP3505 Medical Biotechnology** 3 (2+1)
 Prerequisite : None
 This course encompasses of methodology reproduction and application of special technology in medical biotechnology for the industry related with pharmaceutical, diagnostic and nutraceutical which includes ethical and legal issues.
- SBP3507 Basic Genetics** 3 (2+1)
 Prerequisite : None
 This course covers the classical and molecular genetics, the principles of inheritance and the reasons for the variation in living organisms. These include the principles of Mendel, molecular, and populations genetics, mechanisms of sex determination and sex linkage, structure and function of DNA, chromosomal aberrations and mutations.
- SBP3510 Basic Bioinformatics** 3 (2+1)
 Prerequisite : None
 This course encompasses bioinformatics concepts in genetic mutation, phylogenetic and practice that are available in the virtual environment of the internet. Emphasis will be given to the theoretical and practical aspects of software for the database resources, analysis and manipulation of nucleic acid and amino acid sequences.
- SBP3511 Health Informatics** 2 (2+0)
 Prerequisite : None
 This course covers the aspects of health informatics which included organization, systems and record management. Issues related to public health such as system in financial, administration, quality assurance and ethics are discussed.
- SBP4301 Pharmaceutical Chemistry** 3 (3+0)
 Prerequisite : SBP3301
 This course covers usage of drugs as therapeutic agents, mechanism of action, toxicity and drug stability. Emphasize is given on various factors namely organic chemistry, biochemistry, basic physiology and pharmacology, which influence the therapeutic utilization and specific actions of different groups of drug.
- SBP4302 Ethnopharmacology** 3 (3+0)
 Prerequisite : None
 This course is an introduction to ethnopharmacology, a multidisciplinary field of study that employs chemistry, ecology, biology, and pharmacology to evaluate and understand the use of plants (and other substances) in medical systems. Students introduced to all of the disciplines involved in ethnopharmacological research and address questions related to the actions of natural products in the human body, the efficacy of medicinal plants and the development of pharmaceuticals based on traditional medicines.
- SBP4401 Advanced Medical Microbiology** 3 (2+1)
 Prerequisite : None
 This course discusses the relationship of microorganisms and environment with pathogenesis of diseases, epidemiology and laboratory diagnosis. Control strategies and prevention of infectious diseases are also discussed.
- SBP4402 Cell Signaling & Signal Transduction** 2 (2+0)
 Prerequisite : SBP3402
 The course encompasses the basic features of various extracellular and intracellular signaling systems, and their importance in biological systems. This covers the key components of extracellular and intracellular signaling mechanisms and how these components create signaling pathways. The course introduces Cytoscape, an open source bioinformatics platform for creating network maps of selected signaling pathways.
- SBP4501 Bioinformatic and biomedical sources** 3 (2+1)
 Prerequisite : None
 This course encompasses the use of computer programs for identification of natural diversity resources in biomedical research and handling of biological data. Bioinformatics application in data processing such as genes therapy and molecular medicine are also discussed.

- SBP4502 Basic Forensic** 3 (2+1)
 Prerequisite : None
 This will cover the principles and the application of science and technology to various analyses of crime scene evidence. It includes experimentation, personal observation, note taking, reading and attention to educational films, and commercial films related to forensic science. Scope of expert investigation and qualification, the nature of the results which may be expected from the laboratory and the law as it applies to the admission of test results in evidence discussed.
- SBP4504 Human Variation and Evolution** 3 (3+0)
 Prerequisite : None
 This course encompasses genotype and phenotype aspects of human variation and evolution in individual and populations. Current approaches for analysis of human variation and evolution includes the implications are discussed.
- SBP4601 Human Genetic Disorders** 3 (2+1)
 Prerequisite : SBP3502
 This course covers the relationship between genetic aberrations and various human genetic disorders. The effects of genetic variation, appropriate diagnosis and treatment are also included. Techniques as well as ethical issues related to genetic research will also be discussed.
- SBP4602 Medical Neuroscience** 3 (2+1)
 Prerequisite : SBP3110/ SBP3111/ SBP3113
 This course covers the principles of neuroscience related to the development and functions of the nervous system. Diseases associated with human nervous systems and current neuroscience research models are discussed.
- SBP4604 Stem Cell and Regenerative Medicine** 3 (2+1)
 Prerequisite : None
 This course covers the basic scientific knowledge of stem cells in regenerative medicine. Various differentiation processes of stem cells for clinical applications, the development of research and the latest findings of stem cell technology together with safety and ethical issues in medicine are discussed.
- SBP4904 Biomedical Practicum** 4 (0+4)
 Prerequisite : None
 This course exposes the students to the real working environment, techniques and tasks routinely carried out in laboratories. Students will learn the various aspects of sample collection, analysis and result validation. The course also exposes the students to the use and management of equipments as well as gaining basic skills in laboratory practices.
- SBP4905 Industrial Training** 8 (0+8)
 Prerequisite : None
 In this course, students are exposed to real working environment in industries/organizations. Training includes application of the theoretical and practical aspects that have been studied with current practices in the workplace. Problem solving and communication skills are also emphasized.
- SBP4959 Bachelor Dissertation** 8 (0+8)
 Prerequisite : None
 This course covers the preparation of proposal, implementation and scientific writing of research project. Scientific approach to generate data systematically through appropriate design, data collection and analysis are emphasized.