

FACULTY OF VETERINARY MEDICINE

Doctor of Veterinary Medicine

Study Scheme (*Doctor of Veterinary 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	Asian and Islamic Civilization	2	0	SKP2101	Malaysian Nationhood	3	0
SKP2204	Ethnic Relation	2	0	PRT2008	Agriculture and Man	2	0
VPP3021	Veterinary Biochemistry	2	1	VPP3211	Veterinary Anatomy 1	2	2
SHW3002	Animal Agriculture	2	1	VPP3231	Veterinary Physiology I	2	1
VPK3910	Introduction to the Veterinary Profession	0	1	VPP3130	Veterinary Nutrition	2	1
MGM3101	Principles of Management	3	0	KOC3433	Organizational Communication Skills	2	1
CEL2102	Efective Listening & Speaking			BBI2423	Academic Interaction and Presentation	2	1
VPD3932A	Veterinary Professional Orientation	0	1	LAX university (Muet 5 & 6)	ELEX		
QKxxx	Co-curriculum	0	1	VPD3932B	Veterinary Professional Orientation	0	1
	TOTAL	11	5	QKxxx	Co-curriculum	0	1
					TOTAL	15	8
2 ND YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
VPP3212	Veterinary Anatomy II	2	2	VPP3213	Veterinary Anatomy III	2	2
VPP3232	Veterinary Physiology II	2	1	VPM3415	Veterinary Pathology I	2	1
SHW3101	Ruminant Production	2	1	VPM3301	Veterinary Bacteriology and Mycology	2	1
SHW3202	Non-ruminant Production	3	1	VPP3233	Veterinary Physiology III	2	1
VPP3271	Jurisprudence Ethology And Animal Welfare	2	0	VPM3351	Veterinary Parasitology I	2	1
VPP3140	Veterinary Genetics	2	1	CEL/BBI	ELEX		
BBI2424	Academic Writing	2	1	FCE3204	Thinking Skills	2	0
VPD3933A	Management of Livestock Animals I	0	1	KOM3403	Public Oration	2	1
	TOTAL	15	8	VPD3933B	Management of Livestock Animals I	0	1
					TOTAL	14	8
3 RD YEAR							
CODE	COURSE NAME	L	L/T	CODE	COURSE NAME	L	L/T
VPK3612	Veterinary Clinical Skills	1	1	VPK3613	Veterinary Clinical Medicine I	2	0
VPM3352	Veterinary Parasitology II	2	0	VPM3417	Veterinary Pathology III	3	1
VPP3251	Veterinary Pharmacology And Toxicology	3	1	VPK3702	General Surgery and Anaesthesiology	2	2
VPM3416	Veterinary Pathology II	3	1	VPK3750	Veterinary Diagnostic Imaging	1	1
VPM3340	Veterinary Virology	2	1	VPM4430	Veterinary Clinical Pathology	2	1
VPM3361	Infection and Immunity	1	1	VPK4680	Avian Medicine	2	0
VPD4970	Veterinary Problem Investigation	0	1	LAX University (Muet 3 & 4)	ELEX		
CEL2108	English for IELTS			VPD3934B	Management of Livestocks II	0	2
VPD3934A	Management of Livestocks II	0	1	VPD3935	Clinical Orientation	0	1
	TOTAL	12	7		TOTAL	12	8

4 TH YEAR							
CODE	COURSE NAME	L	LT	CODE	COURSE NAME	L	LT
VPK3614	Veterinary Clinical Medicine II	2	1	VPM4500	Veterinary Public Health	3	1
VPK3712	Veterinary Surgery of the Body Systems	3	1	VPK4670	Pig Medicine	2	0
VPK3801	Theriogenology	2	0	VPK4640	Feline and Canine Medicine	3	0
VPK3931	Clinical Practice and Diagnosis I	0	2	VPK3932	Clinical Practice and Diagnosis II	0	2
VPK4695	Exotic Animal and Wildlife Medicine	2	0	VPK4620	Veterinary Epidemiology	2	1
VPP3160	Applied Statistics & Research Methods	2	1	VPK4650	Equine Medicine	2	0
VPK4692	Aquatic Animal Health and Management	2	1	VPK4660	Ruminant Medicine	3	0
CEL/IELTS (Repeat)	ELEx			CEL/IELTS (Repeat)	ELEx		
VPD4945A	Extramural Clinical Practice	0	1	VPD4941	Extramural Laboratory Diagnostic Practice	0	1
	TOTAL	13	7	VPD4945B	Extramural Clinical Practice	0	1
					TOTAL	15	6
5 TH YEAR							
CODE	COURSE NAME	L	LT	CODE	COURSE NAME	L	LT
VPD4999	Final Year Project	0	3	VPD4990	Applied Veterinary Science	0	3
VPK4943	Veterinary Clinical Practice I	0	6	VPK4944	Veterinary Clinical Practice II	0	9
VPP3170	Veterinary Business	2	1		TOTAL	0	12
VPD4971	Problem Solving in Disease	0	1				
	TOTAL	2	11				

COURSE SYNOPSIS

Department of Veterinary Preclinical Sciences

VPP3021 Veterinary Biochemistry 3 (2+1)

Prerequisite : Null

This course covers aspects of basic biochemistry which include its mechanisms in the cell, tissue and organ metabolism in the normal and abnormal animal body and to link with regulation of the normal animal body and understanding their roles in animal disease and diagnosis

VPP3130 Veterinary Nutrition 3 (2+1)

Prerequisite : VPP3021

This course encompasses the characteristics and importance of nutrients in animal nutrition, voluntary intake as well as nutrient requirements of domesticated, laboratory and exotic animals. Food energy metabolism and balance, feed formulation and digestibility determination techniques are discussed.

VPP3140 Veterinary Genetics 3 (2+1)

Prerequisite : Null

This course encompasses the principles of genetic inheritance and population and quantitative genetics in the breeding and selection of domestic animals. Selection methods, crossbreeding systems and genetic defects are discussed.

VPP3160 Applied Statistics and Research Methods 3 (2+1)

Prerequisite: Null

This course covers planning, resource management, execution as well as interpretation of research outcomes. Emphasis will be placed on understanding of the requirements for constructing defensible research projects as well as being able to assess the validity of research reports.

VPP3170 Veterinary Business 3 (2+1)

Prerequisite: Null

This course covers concepts, principles, knowledge and application of management in veterinary business. Topics include resource allocation, economic principles, cost of diseases and health in animal management and production, econometric methods, cost-benefit analysis, decision analysis, and veterinary business planning.

VPP3211 Veterinary Anatomy 1 4 (2+2)

Prerequisite : Null

This course encompasses various terminologies commonly used in veterinary anatomy, histology and embryology. The development of early embryo, cell structure, and histological structure of four basic tissues, hemopoetic tissue and the topographic anatomy of domestic animal are explained.

VPP3212 Veterinary Anatomy II 4 (2+2)

Prerequisite : VPP3211

This course encompasses the development, histological and anatomical structures of the cardiovascular, digestive, urinary and respiratory systems. Practical classes encompass dissection, examination of fresh and fixed specimens and examination of histological slides of the systems mentioned above. Emphasis is given to the structure and functional relationship of the above systems.

- VPP3213 Veterinary Anatomy III** 4 (2+2)
 Prerequisite : VPP3211
 This course encompasses the development, gross anatomical structures and histology of the nervous, reproductive, integument, endocrine systems and the sense organs with emphasis on the structural-functional relationship of the above systems.
- VPP3231 Veterinary Physiology I** 3 (2+1)
 Prerequisite : Null
 This course encompasses the functions of the cell and excitable tissues and also describes the functions of the haemopoietic and immune systems. The principles followed in the Ls will be illustrated in laboratory classes.
- VPP3232 Veterinary Physiology II** 3 (2+1)
 Prerequisite : VPP3231
 This course encompasses the functions, mechanisms of control, regulation and coordination of the animal cardiovascular, digestive, renal and respiratory systems. The application of the knowledge, functions and roles of the systems mentioned in the maintenance of homeostasis are emphasized.
- VPP3233 Veterinary Physiology III** 3 (2+1)
 Prerequisite : VPP3231
 This course encompasses the functions, mechanisms of control, regulation and coordination of the animal nervous, endocrine, reproductive systems as well as basic principles of environmental and stress physiology. The application of the knowledge, functions and roles of the systems mentioned in the maintenance of homeostasis is emphasized.
- VPP3251 Veterinary Pharmacology And Toxicology** 4 (3+1)
 Prerequisite : VPP3233
 This course covers use of drugs based on principles of pharmacology and toxicology with emphasis given to effects of drugs and poisons on biologic systems, their mechanisms and sites of action. Therapeutic applications, toxicity effects, differences in host response to therapeutic agents, factors influencing the effectiveness, toxicity and the general principles of treatment of poisoning.
- VPP3271 Jurisprudence Ethology And Animal Welfare** 2 (2+0)
 Prerequisite : Null
 This course encompasses aspects of animal behaviour, causes of behaviour and their implications on animal management, production, health and welfare. The laws and regulations that govern animal husbandry and veterinary service in Malaysia are also discussed

Department of Veterinary Clinical Studies

VPK3612 Veterinary Clinical Skills 2 (1+1)

Prerequisite : Null

This course encompasses the skills in obtaining patient medical history, performing complete physical examination, recording and evaluating the findings as well as identifying and distinguishing between various general systemic states common in diseased animals. Restraining techniques, treatment and health care for patients are emphasized

VPK3613 Veterinary Clinical Medicine I 2 (2+0)

Prerequisite: VPK3612

This course introduces the concepts of disease processes in the dysfunction of body systems of animals. Disease manifestation, pathogenesis, diagnosis, treatment and clinical management of diseases including surgery and the appropriate use of drugs agents are discussed

VPK3614 Veterinary Clinical Medicine II 3 (2+1)

Prerequisite: VPK3612

This course introduces the concept of disease processes in the body systems dysfunction of domestic animals. Disease manifestation, pathogenesis, diagnosis, treatment and clinical management of diseases including surgery and the use of chemotherapeutic agents are discussed

VPK3702 General Surgery and Anaesthesiology 4 (2+2)

Prerequisite : VPP3251

This course encompasses the basics of veterinary surgery and anaesthesiology. Celiotomy and neuter in dogs or cats are used to practise the surgical and anaesthetic procedures. Surgical techniques involving the integument system are discussed.

VPK3712 Veterinary Surgery of the Body Systems 4 (3+1)

Prerequisite : VPK3702

This course deals with the various affections of the different body systems of small and large animals and their surgical management.

VPK3750 Veterinary Diagnostic Imaging 2 (1+1)

Prerequisite: VPP3213

This course provides a general introduction to the physics of radiation, principles of radiation safety, techniques of taking and processing radiographs. The basic skills of radiography and the interpretation of radiographs are emphasized. Common radiological features of various diseases in domestic animals are discussed. Veterinary alternative imaging techniques such as (ultrasound, computed tomography (CT), magnetic resonance imaging (MRI) and nuclear medicine are introduced.

VPK3801 Theriogenology 2 (2+0)

Prerequisite : VPM3417

This course encompasses studies on reproduction, including the physiology and pathology of the male and female reproductive systems. Emphasis is given to obstetrics, andrology and infertility

VPK3910 Introduction to the Veterinary Profession 1 (0+1)

Prerequisite : Null

This course introduces the veterinary profession, its history, the main international and national professional bodies, diversity of occupations within the profession and the professional roles and ethics of veterinarians as well as the associated opportunities and responsibilities. The common animal species, breeds, their basic needs, welfare, animal-welfare organizations, handling as well as the human-animal bond are introduced.

VPK3931 Clinical Practice and Diagnosis I 2 (0+2)

Prerequisite : VPK3612

This course introduces the routines and management of veterinary clinical practice and diagnostic laboratories where students are rotated. Students participate in the daily activities of the clinics and laboratories, and keep record of the procedures carried out in their clinical practice portfolio. Emphasis is given on animal handling, physical examination and medication, as well as communication skills.

VPK3932 Clinical Practice and Diagnosis II 2 (0+2)

Prerequisite : VPK3931

This course introduces the routines and management of veterinary clinical practice and diagnostic laboratories where students are rotated. Students participate in the daily activities of the clinics and laboratories, and keep record of the procedures carried out in their clinical practice portfolio. Emphasis is given on animal handling, physical examination and medication, as well as communication skills.

VPK4620 Veterinary Epidemiology 3 (2+1)

Prerequisite : Tiada/Null

This course covers concepts and principles of epidemiology and ability to apply this to investigation of animal health issues and critical evaluation or analysis of epidemiological studies.

VPK4640 Feline and Canine Medicine 3 (3+0)

Prerequisite : VPK3614

This course encompasses the aetiology, epidemiology, pathogenesis, clinical signs, diagnosis, treatment, control, prevention and prophylaxis of common and important canine and feline clinical syndromes and diseases. Relevant drugs for treatment as well as patient nursing care are reviewed.

VPK4650 Equine Medicine 2 (2+0)

Prerequisite : VPK3614

This course covers systematic approaches to investigate clinical syndromes in equine. The aetiology, epidemiology, pathogenesis, clinical signs, diagnosis, treatment, control, prevention and prophylaxis of these diseases are described. Actions and uses of relevant drugs for treatment as well as nursing care are reviewed.

VPK4660 Ruminant Medicine 3 (3+0)

Prerequisite : VPK3614

This course encompasses the aetiology, epidemiology, pathogenesis, clinical signs, diagnosis, treatment, control, prevention and prophylaxis of common and important ruminant clinical syndromes and diseases. Relevant drugs for treatment as well as patient nursing care are reviewed.

VPK4670 Pig Medicine 2 (2+0)

Prerequisite : VPK3614

This course encompasses investigation of clinical syndromes in pigs, including common and important diseases, with emphasis to diseases found in Malaysia. Etiology, epidemiology, pathogenesis, clinical symptoms, diagnosis, treatment, control, prevention and prophylaxis of diseases are discussed.

VPK4680 Avian Medicine 2 (2+0)

Prerequisite : VPK3614

This course encompasses the aetiology, epidemiology, pathogenesis, clinical signs, diagnosis, treatment, control, prevention and prophylaxis of common and important avian clinical syndromes and diseases. Relevant drugs for treatment as well as patient nursing care are reviewed.

VPK4692 Aquatic Animal Health and Management 3 (2+1)

Prerequisite : Null

This course encompasses various aspects of management of cultured aquatic animals with special emphasize on fish species. The relationship between the disease agents, clinical and pathological changes and environment will be discussed. Laboratory procedures, treatment, anesthesia, rapid diagnostic tests, vaccination strategies and the use of immunostimulant and probiotics to improve the environment will be highlighted

VPK4695 Exotic Animal and Wildlife Medicine 2 (2+0)

Prerequisite : VPK3614

This course covers the scientific basis of conservation, management, as well as treatment of infectious and non-infectious diseases of captive and free-ranging wildlife which includes avian, non-human primates, rodents and exotic animals

VPK4943 Veterinary Clinical Practice I 6 (0+6)

Prerequisite : VPK3932

This course is a practice-oriented rotation encompassing diagnosis, treatment and control of diseases. The rotations include clinic and hospital practices for small and large animals, swine, equine, aquatic and avian; laboratories such as clinical pathology, bacteriology and post-mortem. These practices provide exposure, competency and confidence in managing veterinary cases.

VPK4944 Veterinary Clinical Practice II 9 (0+9)

Prerequisite : VPK4943

This course is a practice-oriented rotation encompassing diagnosis, treatment and control of diseases. The rotations include clinic and hospital practices for small and large animals, swine, equine, aquatic and avian; laboratories such as clinical pathology, bacteriology and post-mortem. These practices provide exposure, competency and confidence in managing veterinary cases

VPM3361 Infection and Immunity 2 (1+1)

Prerequisite : VPP3231, VPM3301

This course encompasses immune responses against various infectious agents, cancer cells, hypersensitivity reactions, autoimmune diseases and role of vaccine induced immunity in several important animal diseases with information related to vaccine development and basic principals in serological techniques.

VPM4430 Veterinary Clinical Pathology 3 (2+1)

Prerequisite : VPM3415

This course encompasses interpretation of parameters in haematology, clinical biochemistry, urinalysis and cytology to assist in the diagnosis of disease. Clinical cases are used as material in interpretation and problem solving.

VPM4500 Veterinary Public Health 4 (3+1)

Prerequisite : VPM3340, VPM3351

This course covers zoonoses and foodborne diseases, food safety, meat inspection and residues as well as quality assurance of food of animal origin and principles of `halal` food, and provides skills in microbiological examination of meat and milk.

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VPD3932 Veterinary Professional Orientation 2 (0+2)

Prerequisite : Null

This practical training encompasses the early exposure to regular routines and ethics of practicing veterinarians, management of clinics, equipment used and exposure to basic skills in veterinary practice. The ethical values and professionalism of veterinary practitioners will be emphasized. The training involved student attachments at veterinary clinics, zoos, University Agriculture Park (TPU), University Veterinary Hospital (UVH) and animal shelters operated by SPCA and PAWS

VPD3933 Management of Livestocks I 2 (0+2)

Prerequisite : Null

This practical training encompasses the exposure to regular farming routines of ruminant and pigs/aquatic animals. Apart from learning farm management practices, the ethical values and professionalism of veterinary practitioners will also be emphasized. The training involved farm attachments at ruminant and pigs/aquatic animal farms.

VPD3934 Management of Livestocks II 3 (0+3)

Prerequisite : Null

This practical training encompasses the exposure to regular routines of poultry farms, wildlife centers and the operation of diagnostic laboratories. Apart from learning farm and laboratory management practices, the ethical values and professionalism of veterinary practitioners will also be emphasized. The training involved attachments at poultry farms, wildlife centers and the Veterinary Laboratory Services Unit (VLSU)

VPD3935 Clinical Orientation 1 (0+1)

Prerequisite : Null

This practical training encompasses the exposure to the organization, operation and case management practices in veterinary hospitals and clinics. These involve clinical rotations at the University Veterinary Hospital (UVH) for clinical skills exposure and training

VPD4941 Extramural Diagnostic Laboratory Practice 1 (0+1)

Prerequisite : Null

This practical training encompasses the exposure to the organization, operation and case management practices in veterinary hospitals and clinics. These involve clinical rotations at the University Veterinary Hospital (UVH) for clinical skills exposure and training.

VPD4945 Extramural Clinical Practice 2 (0+2)

Prerequisite : Null

This course provides exposure in veterinary clinical practice through clinical attachment at veterinary practices. Apart from following clinical cases at veterinary practices, students are required to know procedures of case management and relevant diagnostic approaches for the case.

VPD4970 Veterinary Problem Investigation 1 (0+1)

Prerequisite : Null

The course focuses on mechanisms of disease in body systems and disease investigation through a problem-based approach to integrate previous knowledge with new knowledge gained through self-directed learning in the topics.

VPD4971 Problem Solving in Disease 1 (0+1)

Prerequisite : Null

This course uses a student-centered approach to identify, investigate, create a hypothesis and provide solutions to disease problems.

VPD4990 Applied Veterinary Science 3 (0+3)

Prerequisite : Pass all the Faculty courses before the end of the semester program DPV

This course involves application of the knowledge and skills acquired in animal sciences, pre-clinical sciences, para-clinical and clinical sciences. This course comprises self-study in the final semester of the Doctor of Veterinary Medicine programme.

VPD4999 Final Year Academic Project 3 (0+3)

Prerequisite : Null

This course encompasses research projects which identifies issues in the animal industry, its planning, implementation, data analysis and interpretation, preparation and presentation of a scientific report.

Department of Animal Science, Faculty of Agriculture

SHW3101 Ruminant Production 3(2+1)

Prerequisite : VPP3130

This course encompasses the management and production of beef dairy animals and small ruminant. Major requirements in ruminant production such as nutrition, facilities, handling of milk and meat products, health and animal wastes management are also discussed.

SHW3202 Non-Ruminant Production 4(3+1)

Prerequisite : VPP3130

This course covers the management of broiler, layer and pig production. Major requirements in non ruminant production such as selection and breeding, nutritional requirements, facilities, handling of eggs and meat products, health management as well as handling of animal wastes are also covered.

SHW3002 Animal Agriculture 3(2+1)

Prerequisite : Null

This course encompasses the importance of animal agriculture to human civilization, apart from introducing students to the elements of current agricultural practices and sustainable agriculture. Basics animal welfare and animal health, as well as good animal health practices are also discussed.