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Veterinary Eligibility and Education

Veterinary Education in Malaysia



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Universiti Putra Malaysia

AGRICULTURE • INNOVATION • LIFE



Faculty of Veterinary Medicine

Introduction

- ❑ The Faculty of Veterinary Medicine (FVM) in Malaysia was first established in 1972 at Universiti Putra Malaysia (UPM) with the first student intakes to enroll Doctor of Veterinary Medicine (DVM) programme in 1973
- ❑ The veterinary services were previously served by mainly veterinary graduates from Australia, Canada, India, Pakistan, UK and USA
- ❑ In 2009, FVM, Universiti Malaysia Kelantan (UMK) was established as the second veterinary school in the country
- ❑ Both DVM programme in UPM and UMK are accredited by Malaysia Veterinary Council (MVC)
- ❑ The graduates of the Faculty are almost assured of job placements upon graduation





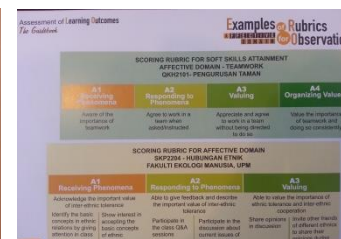
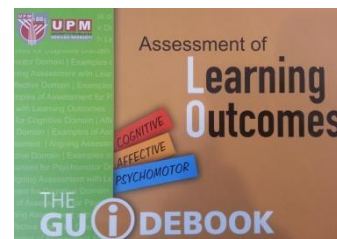
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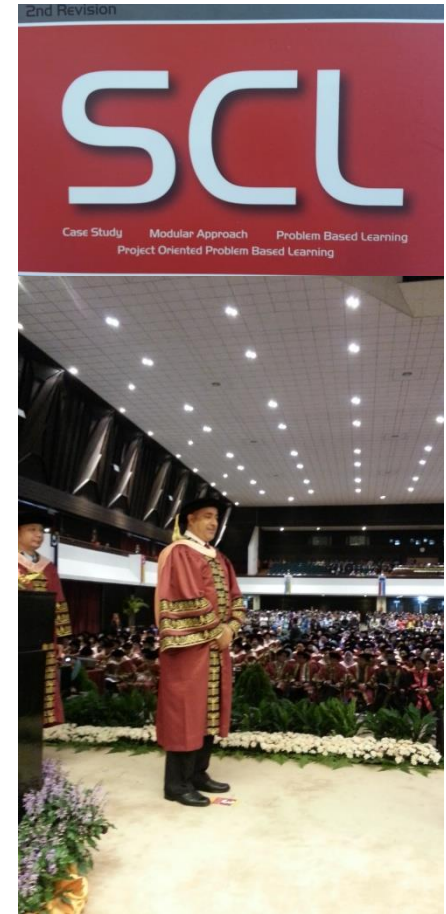
Veterinary Curriculum

- ❑ A 5 years programme with English as the medium of instructions and follows semester system
- ❑ The curriculum is based on British, Canadian, Australian and American system with some component of animal production (10-15%) and critically reviewed once in every 5 years
- ❑ It emphasis on learning outcomes based on teaching and learning taxonomy: cognitive, psychomotor, affective and social domains, and soft skill elements
- ❑ It in-line with the AVBC, RCVS, and OIE requirements
- ❑ Curriculum revision is done every 5 years with feedback from industry, employer surveys, forums with industry, external assessors and examiners and required approval by various committees such as Malaysia Veterinary Council (MVC), Advisory Committee, Senate and Ministry of Education



Veterinary Curriculum

- ❑ The approach in teaching and learning focus on **student centered learning (SCL)** such as problem based learning (PBL), case study, modular approach, project oriented problem based learning (PoPBL), computer assisted learning (CAL) and independent project
- ❑ Assessment is by objectives-based evaluation (OBE): that centers on the specification of objectives and the measurement of outcomes, and produce a day-one competency graduate
- ❑ **Post graduate training** such as Master and PhD programmes, **internship** and **residency** programmes, **specialists** (Malaysian College of Veterinary Specialists and others) as well as **lifelong learning** and **continuous professional development (CPD)** are encouraged to the graduate to enhance their competency and meeting the profession challenges globally
- ❑ Meeting a CPD point is a requirement for Annual Practicing Certificate (APC) renewal annually



Admission

- ☐ The admission of student in Malaysian veterinary schools is very competitive and only highly qualified candidate with good academic achievements and high interest in the programme such as first choice for the programme will be successfully enrolled into the programme
- ☐ The faculty only admits students with a minimum CGPA of 3.50 (maximum of 4.00)
- ☐ The faculty has introduced interview as part of the admission process
- ☐ Criteria that are evaluated during the interview
 - ✓ Personal traits and communication skills
 - ✓ Passion and interest in veterinary medicine
 - ✓ Ethical and professional qualities
 - ✓ Leadership, managerial and interpersonal skills
 - ✓ Related Experiences
 - ✓ General and supplementary questions
- ☐ Currently, only about 110 and 40 places per year are available for new national student intakes in Faculty of Veterinary Medicine UPM and UMK, respectively, including about 5-10% full-fee international or overseas students

Admission Requirements

- ❑ The minimum admission requirements are as follows:

(1) *Matriculation/Foundation Studies*

- ❑ Cumulative Grade Point Average (CGPA) of ≥ 3.5 , at least Grade B+ in Biology and Grade B in Chemistry or at least Grade B+ in Chemistry and Grade B in Biology.

(2) *Malaysian Higher School Certificate or its equivalent for non-Malaysian*

- ❑ CGPA of ≥ 3.5 , at least Grade B+ in Biology and Grade B in Chemistry or at least Grade B+ in Chemistry and Grade B in Biology, a pass in the practical exam as required in the subjects of Biology and Chemistry

(3) *Diploma in a related field*

- ❑ CGPA requirement based on work experience; No experience, ≥ 3.5 ; 3-4 years of experience, ≥ 3.0 ; 5-9 years of experience ≥ 2.7 ; 10 years of experience ≥ 2.5 .

❑ *English language requirement*

- ❑ For local students, at least Band 3 in the Malaysian University English Test (MUET). Non-Malaysians of non-English speaking background require a minimum **IELTS score of band 6.0 or TOEFL Paper Based score of 550** or 218 (Computer Based) or 79-80 (Internet Based)

Quality Management System

- ❑ In July **2000**, the Faculty was awarded the comprehensive **MS ISO 9001:1994** certification that encompasses undergraduate and graduate studies, research, administration, continuing education, and professional and veterinary hospital services
- ❑ In December 2011, UPM was awarded the comprehensive **MS ISO 9001:2008** certification
- ❑ In April 2010, UPM awarded Certificate of **Self-Accreditation Status** from Malaysia Qualifications Agency (MQA)
- ❑ In 2008, the Faculty was accredited with **MS ISO/IEC 17025:2005** for veterinary laboratory services
- ❑ In September 2014, University Agricultural Park (TPU) was awarded Malaysia Good Agriculture Practice (MyGAP)
- ❑ In 2016, NCO MyOHUN was awarded the ISO 9001:2008 certification
- ❑ In **September 2017**, UPM was awarded the comprehensive **QMS ISO 9001:2015** certification – (i.e. [Strategic vision](#) & [Risk management](#))



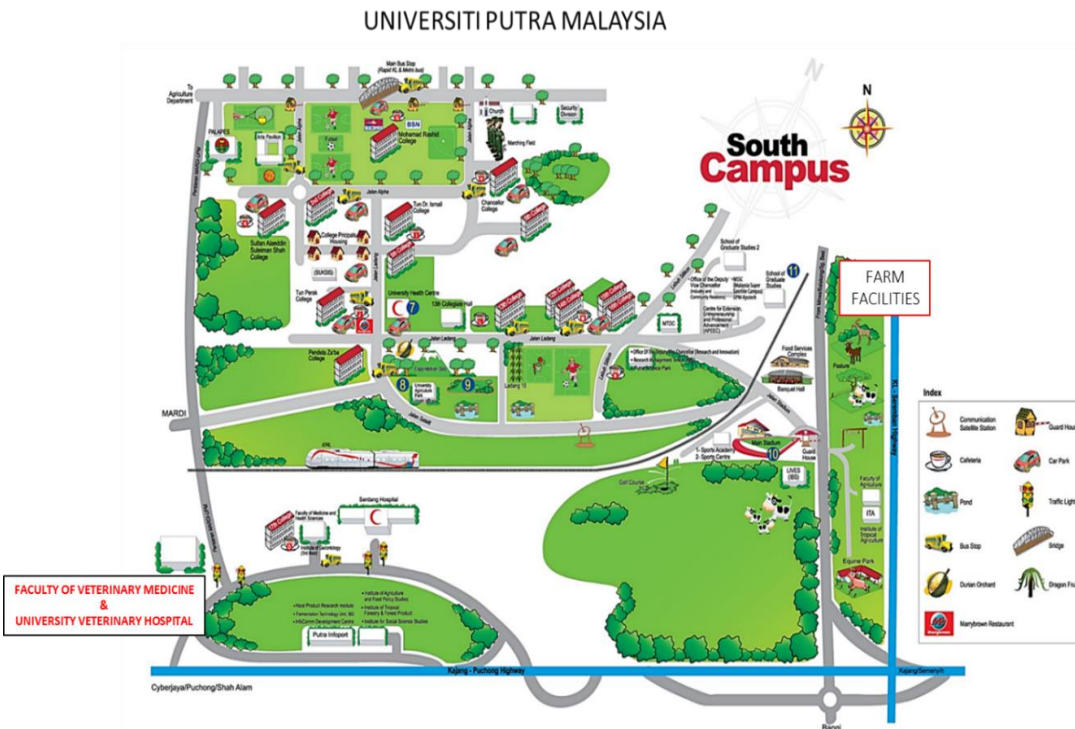
Faculty of Veterinary Medicine, UPM

- ❑ In 2010 the faculty relocated to the new Veterinary Complex at the South campus of UPM within the federal administrative districts of Putrajaya and Cyberjaya that allows easy access to the public
- ❑ The Complex comprising the **administrative, academic and laboratory, necropsy and veterinary hospital** blocks
- ❑ Formal teaching is conducted mainly in this Complex
- ❑ Adequate space and facilities for effective activities and archive excellence in the core functions
- ❑ High quality of veterinary education and graduates in the country and globally



BLOCKS	AREAS (M ²)
ADMN. ACAD.. & LABS	17,506
UNIVERSITY VET. HOSPITAL	11,233
NECROPSY	1,594
TOTAL	30,333

Area Map Principle and Off-Campus Veterinary Teaching Facilities

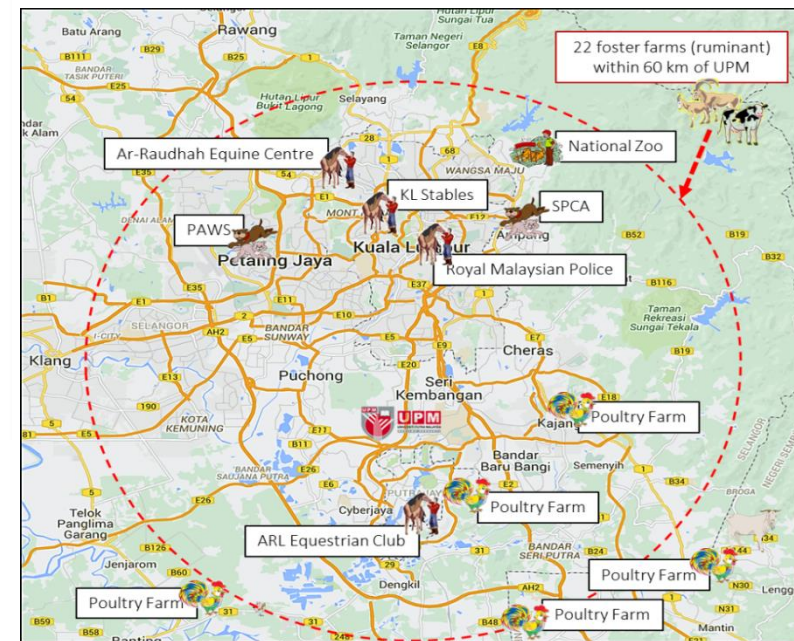


Extramural Studies / Industrial Training

- ✓ Conducted during the end of semester 1 (0-5 weeks) and end of semester 2 (1-6 weeks)
- ✓ Government and non-government farms, clinics and laboratories

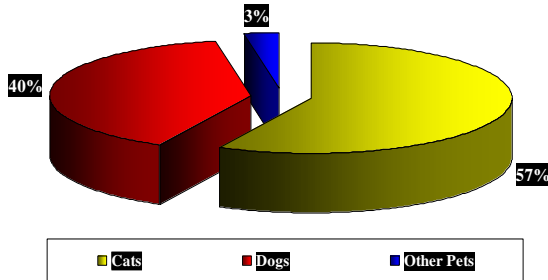
Clinical Training (During Semester)

- ✓ Main facilities at UVH and TPU, UPM
- ✓ Clinical cases at Foster Farms, Client farms & stables, Animal shelter and Zoo

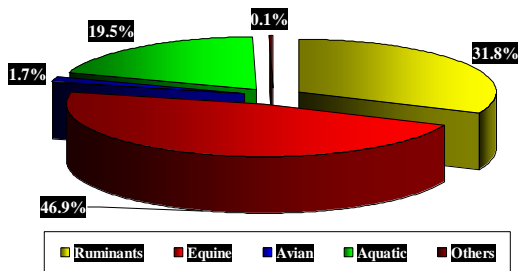


University Veterinary Hospital

COMPANION ANIMALS



FARM ANIMALS & EQUINE



✓ No of cases:

- UVH: 17,000 per year
- VLSU: 8,500 per year

Quick win opportunities

- ✓ Open Saturday and Sunday
- ✓ Expanding foster farms
- ✓ Revision of fee schedule for services
- ✓ Revision of funding for student clinical practices from University
- ✓ Expending clinical and laboratory services for research activities
- ✓ Competence Business Manager
- ✓ Comprehensive [business plan](#)

Medium to long-term plans (MRM & RMK 11)

- ✓ Satellite clinic for farm and companion animals
- ✓ Pet hotel facilities and services
- ✓ Special annual budget from Ministry
- ✓ Animal Care Foundation
- ✓ UVH as CoE of professional services
- ✓ Residency programme
- ✓ BioNexus status for [VLSU](#)
- ✓ Referral Centre
- ✓ New building and facilities for laboratory diagnosis
- ✓ Autonomy

Strategic Plan 2016-2020

✓ Vision

Veterinary faculty of international repute

✓ Mission

To contribute to the advancement of veterinary sciences and animal industries through excellence in teaching, research and professional services for the well-being of the nation and global society

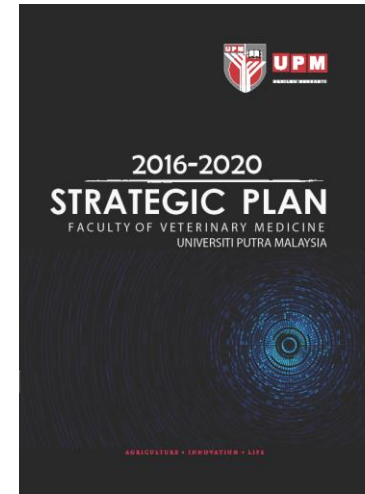
✓ Values

Excellence, Diversity, Sustainability, Integrity, Caring

✓ Goals

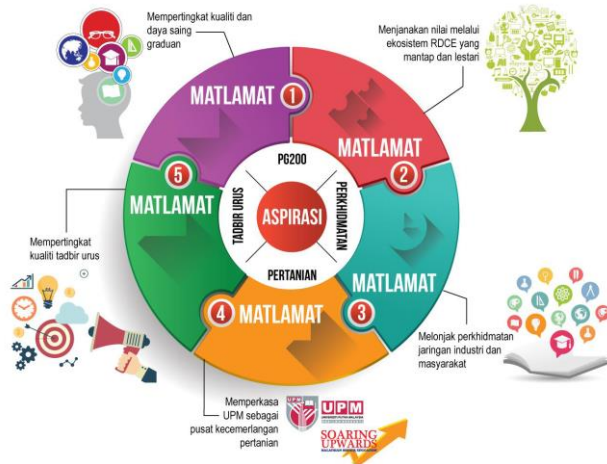
1. Enhancing the quality and competitiveness of graduates
2. Generation of values through a steady and sustainable RDCE ecosystem
3. Boosting professional services, industry and community engagement
4. Enhancing the quality of governance

✓ Strategic objectives (13), Action Plans and Key Performance Indicators



Strategic Plan 2016-2020

- Malaysia Education Blueprint 2015-2025 (Higher Education) - 10 shifts to support the attainment of system and student aspiration
- UPM Strategic Plan (2014 – 2020) which has 5 goals and 19 strategic objectives
- Putra Global 200



Strategic Vision

- ❑ Evaluate key performance indicators (KPI) quarterly (32 KPI UPM)
- ❑ QMS audit annually (ISO, EMS, OSHA)
- ❑ Annual Management Review Meeting (MRM)
- ❑ Malaysian Research Assessment Instrument (MyRA)

- ❑ DVM programme accredited by AVBC
- ❑ Top 50 QS World University Ranking in Vet. Sci. in 2020



Year	Indicator				Score
	Academic Reputation (30%)	Employer Reputation (10%)	Citation per paper (30%)	H-Index (30%)	
2015	0.0	62.3	64.2	49.4	40.3
2016	65.8	74.3	71.3	60.3	66.7
2017	52.6	71.3	73.3	61.8	63.4
2018	58.8	78.6	75.5	64.5	67.6

International Accreditation

❑ AVBC 12 Standards for Accreditation

- | | |
|----------------------------------|--|
| 1. Organisation | 7. Curriculum |
| 2. Finances | 8. Assessment |
| 3. Facilities and equipment | 9. Pre-and para-clinical animals and related resources |
| 4. Academic and support staff | 10. Clinical skills development |
| 5. Admission and progression | 11. Continuing and higher education and research |
| 6. Students and learning support | 12. Outcomes assessment |
- ❑ *Version 2.1, February 2015* © Australasian Veterinary Boards Council Inc. (AVBC)

- ✓ Initial contact in Dec. 2014 during AVBC meeting in Melbourne Australia
- ✓ AVBC Accreditation Committee FVM, UPM
- ✓ SER was submitted to AVBC on 5 May 2016
- ✓ Consultative Site Visit on 5-8 September 2016
- ✓ Final Visit / Audit in 2017

DVM Students

Numbers of students enrolled in the veterinary programme

Session (year/year)	2012/2013 Total Number (domestic/international students)	2013/2014 Total Number (domestic/international students)	2014/2015 Total Number (domestic/international students)	2015/2016 Total Number (domestic/international students)	2016/2017 Total Number (domestic/international students)
First	95 (91/4)	120 (117/3)	107 (105/2)	96 (94/2)	137 (133/4)
Second	108 (106/2)	91 (87/4)	118 (115/3)	105 (103/2)	95 (93/2)
Third	90 (88/2)	108 (106/2)	90 (86/4)	118 (115/3)	103 (101/2)
Fourth	77 (77/0)	88 (86/2)	108 (106/2)	89 (85/4)	118 (115/3)
Fifth	73 (73/0)	77 (77/0)	88 (86/2)	108 (106/2)	89 (85/4)

- ✓ The faculty has introduced [interview](#) as part of the admission process starting from 2017/2018 student intake
- ✓ Beginning with 2016/2017 intake, each class is divided into two groups for lectures and practical classes

Foreign students from 8 countries - Fiji, Saudi Arabia, Sri Lanka, India, Singapore, USA, Mauritius and Japan

Awards - FVM - 49 Excellence Academic Awards
UPM - 7 Excellence Academic Awards

Post Graduate Students

Students	Postgraduate students - session (year/year)				
	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017
Intern	NA	NA	NA	NA	NA
Resident	NA	NA	NA	NA	NA
Intern + MVM	3	7	6	6	1
Resident + PhD	NA	NA	NA	NA	NA
MS	59	50	64	66	67
MVSc	41	38	29	30	40
PhD	76	81	88	85	97
TOTAL	179	176	187	188	205

From 14 Countries - Algeria, Indonesia, Iran, Iraq, Malaysia, Nigeria, Oman, Pakistan, Saudi Arabia, Somalia, Sudan, Syrian Arab, Vietnam and Yemen

Faculty Awards

- ✓ FVM - Best Thesis for PhD, MVSc and MS & Best MVM Students
- ✓ UPM – Best PhD and MS Thesis



No	Programme	Intakes 2016/2017
1	PhD	13
2	MS	12
3	MVSc	8
4	MVM	1
Total		34

No	Programme	Graduated in 2016/2017
1	PhD	30
2	MS	7
3	MVSc	4
4	MVM	1
Total		42

Research

❑ Five top research areas of the Faculty

- ✓ Veterinary Biologics and Pharmaceuticals
- ✓ Ruminant Diseases and Herd Health Management
- ✓ Diagnostic Technology on Animal Diseases
- ✓ Veterinary and Comparative Oncology
- ✓ Animal Model in Biomedical Research

❑ Two new research programmes

- ✓ Edible Bird Nest Swiftlet: Production, Health and Product Quality
- ✓ Zoonotic and Emerging Diseases

❑ Research findings are incorporated in courses in the DVM and postgraduate programmes and also used as important resource material in student centered learning such as case studies and PBL

❑ Research on teaching and learning such as PBL, team based learning and OSCE where 6 Faculty members have received Teaching Incentive Grants

CoE - Swiftlets

Emerging Swiftlets Industry in Malaysia

RC (CoE) - Ruminant

Ruminant Health and Production

RC (CoE) - Wildlife

Biology, Health, Captive Breeding and Conservation

CoE - Vaccine and Therapeutic (IBS)

Conventional and new generation of vaccines and rapid diagnostic kits

Research Programme – 14

- 

Student Associations and Committees

- ❑ Students contribute to the direction and decision making of the Faculty through several committees and student associations
- ❑ They can express their grouses to the Faculty via the suggestion box, online feedback system (U-response System), individual and class emails, and online Teaching Assessment system
- ❑ Organisation and governance of student activities in the university are coordinated by the Student Representative Council (MPP)
- ❑ At the Faculty, Veternak is the main student body assisted by affiliated clubs of Veternak such as the International Veterinary Student Association (IVSA) Malaysian Chapter, Zoologico, One Health Student Club, Putrabiz@Vet, VIP, Dogathon, Prokasih, Vetsports, Ceriathon, and VetCamp Committees who is actively organises and conducts student activities



High Impact Collaborative Initiative

Leading role

- ✓ Asian Association of Veterinary Schools (AAVS)
- ✓ South East Asia Veterinary Schools Association (SEAVSA)
- ✓ South East Asia One Health University Network (SEAOHUN)
- ✓ The Association of Institutions for Tropical Veterinary Medicine (AITVM)



- ✓ OiE, FAO and WHO
- ✓ MoU/MoA/Collaboration – institutions and universities in United Kingdom, Europe, USA, Australia, Asia and South East Asia

Conclusions

- ✓ The veterinary education in Malaysia is recognised globally and accredited by Malaysia Veterinary Council (MVC) and in the process of international accreditation
- ✓ Veterinary education needs to address issues and changes in new scenarios, stakeholder expectation, specialization of the profession and challenges in a today borderless world
- ✓ Reengineering of the profession may yet to consider critically in a near future by adopting an educational system that combines substantive undergraduate tracking, compulsory internship and designated licensure





Thank You



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