

# THE GAZETTE OF PAKISTAN

EXTRAORDINARY  
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## PART II

Statutory Notifications containing Rules and Orders issued by all Ministries  
and Division of the government of Pakistan and their Attached and  
Subordinate Offices and the Supreme Court of Pakistan

Government of Pakistan

### MINISTRY OF FOOD, AGRICULTURE AND LIVESTOCK

(Food, Agriculture and Livestock Division)

[Livestock Wing]

#### NOTIFICATION

*Islamabad, the 19<sup>th</sup> November 2001*

**S.R.O. 155 (KE)/2001:**

In exercise of the powers conferred by Section 23 Clauses (i), (j), (k), (l), (m) and (n) of the Pakistan Veterinary Medical Council Act, 1996 (III of 1996), the Pakistan Veterinary Medical Council, with the previous sanction of the Federal Government, is pleased to make the following regulations, namely:-

**The Pakistan Veterinary Medical Council: Standards of Education Regulations, 2001.**

#### CHAPTER-1 – PRELIMINARY

1. **Short title, application and commencement:-** (1) These regulations shall be called the Pakistan Veterinary Medical Council - Standards of Education Regulations, 2001.
  - (2) These regulations shall apply to:-
    - a) Doctor of Veterinary Medicine (D.V.M), Degree and
    - b) Deficiency Course leading to DVM Degree.
  - (3) These regulations shall come into force with the introduction of five years D.V.M Degree Programme starting from academic year 2001-2002.
2. **Definitions:-** In these regulations, unless the context otherwise requires:-
  - (a) “Act” means the Pakistan Veterinary Medical Council Act, 1996 (III of 1996);

- (b) “Council” mean the Pakistan Veterinary Medical Council constituted under section 3 of the Act;
- (c) “course” means the course of study as prescribed in scheme of studies of D.V.M Degree Programme;
- (d) “credit hours” means the weekly unit of work recognized for any particular course as per course catalogue issued by the University on the basis of a lecture class of one hour per week which shall be counted as one credit, whereas a practical class of two hours duration shall be counted as one credit hour;
- (e) “syllabus and curriculum” means the syllabus and curriculum for courses of study prescribed by the Council;
- (f) “teaching experience” means the teaching experience in the subject concerned in a veterinary college or in a veterinary hospital or research institution recognized by the Council, and
- (g) “veterinary hospital or institution” means teaching and non-teaching veterinary hospital or institution relevant to livestock health, production or technology by whatever name called and approved as such by the Council.

## **CHAPTER-II, AWARD OF D.V.M DEGREE**

3. **Course of Study:-** (1)The Degree of D.V.M shall consist of a course of study consisting of curriculum and syllabus spreading over five complete academic years consisting of ten regular semesters including a compulsory internship of six months (10<sup>th</sup> semester + one summer session) after successful completion of credit hours provided in the syllabus.
  - (2) During the course of study, there shall be training in a teaching veterinary hospital, livestock farm (including avian) and field training in veterinary production and technology institutions as part of the course.
  - (3) For evaluation in the various subjects comprising the veterinary education courses, the period of five years training shall be divided into 10 semesters with a university examination at the end of each period and every attempt shall be made to link the curriculum among basic veterinary, production, para-clinical and clinical subjects. An external examiner shall be involved at least before clearing each subject and examination.
  
4. **Admission to DVM Degree Programme:-** No candidate shall be admitted to the Doctor of Veterinary Medicine (D.V.M) Degree programme unless he or she, as the case may be, has passed:-

- (a) the Higher Secondary examination or the Pakistan School Certificate Examination equivalent to High Secondary Examination with Physics, Chemistry, Biology and English;
- (b) Intermediate, or pre-degree examination in science from a recognized University or Board with Physics, Chemistry, Biology and English;
- (c) B.Sc examination, from a recognized University with not less than two of the following subjects i.e. Physics, Chemistry and Biology (Botany/Zoology) and further that he or she has passed the earlier qualifying examination with the following subjects viz. Physics, Chemistry, Biology and English; or
- (d) any other examination of which the scope and standard is found to be equivalent to the Intermediate Science Examination of a Pakistani University or Board taking Physics, Chemistry and Biology including a practical test in each of these subjects and English.

5. **Selection of students:-** The selection of students for DVM Degree programme shall be on the basis of seventy five rural and twenty five percent urban quota. In each category, candidates shall be admitted purely on merit.

6. **Migration or transfer of students, etc:-** (1) A student studying in a recognized Veterinary College or Faculty may be allowed to migrate to another recognized Veterinary College or Faculty under another or same university subject to similar examinations and course contents of the classes in the two colleges/faculties.

(2) The migration may be allowed by the University concerned after successful completion of 1<sup>st</sup> semester examination.

(3) The number of students migrating from one Veterinary College or Faculty to another Veterinary College or Faculty during the period of one year shall be kept to the maximum limit of five percent of its intake in any one Veterinary College or Faculty in a year.

(4) Cases not covered under clauses (1) to (3) may be referred to the Council for consideration and decision on merit.

7. **Syllabus and courses:-** The details of syllabus consisting credits for completion of minimum requirements leading to award of D.V.M Degree and semester wise distribution of different course shall be as specified in the First Schedule attached to these regulations.

8. **Internship:-** (1) Every candidate after passing all courses of D.V.M examinations shall undergo compulsory rotating internship to the satisfaction of the University for a minimum period of six months (10<sup>th</sup> semester and one summer session) so as to be eligible for the award of D.V.M Degree.
- (2) The University shall issue a provisional course completion certificate on passing the final examination and award degree after completing the internship.
- (3) The compulsory rotating internship for six months shall be carried out in teaching and approved veterinary polyclinics or veterinary hospitals, technology centres, farms and veterinary disease investigation centres. The compulsory rotating internship shall be in the following areas, namely:-
- (a) clinical training covering veterinary medicine, surgery and radiology, animal reproduction, gynecology and obstetrics, clinical emergencies, indoor ward care, hospital management record keeping etc. for three months;
  - (b) livestock production and management training, covering farm routines of cattle and buffalo farms sheep and goat farms, and equine or camel units, etc. for one month.
  - (c) Poultry production and management covering layer and broiler production hatchery and chick management, etc., as well as fisheries or any other recycling unit where feasible, for one month.
  - (d) Livestock technology and service covering familiarization in biological production units, disease control campaigns, (disease investigation and sample collection and dispatch, vaccination, mass testing, etc.) milk plants, etc., training in zoo, wildlife centres or national parks, for one month;
  - (e) Details of day to day work posting shall be worked out by the relevant institutions as per its needs and infrastructure facilities; and
  - (f) The training shall be supplemented by weekly sessions of clinical conferences, farm operations and data analysis, preparation of feasibility reports, project reports, campaigns and discussions in clinical training, farm training and technology and services, respectively.
- (4) For the purpose of internship all necessary inputs like accommodation, transport, adequate clinical facilities, etc., shall be provided.

- (5) When an internee is posted to a recognized veterinary hospital for training a representative of the college and the Incharge of the veterinary hospital shall regulate the training of such internee.
- (6) The internee shall maintain a log-book of day to day work which may be verified and certified by the Veterinary Officer or Incharge under whom he works. Based on the record of work, the Dean or as the case may be, Principal, shall issue a certificate of satisfactory completion of training following which the university shall award the DVM Degree or the provisional certificate.

9. **Procedure for selection and training during internship:-** (1) No veterinary teaching hospital shall be recognized unless it has an average minimum of twenty outdoor cases daily.

- (2) The attached teaching veterinary hospitals should have properly built indoor wards, clients accommodation, emergency service and the necessary facilities to conduct, demonstrate and train all medical, surgical and gynecological cases and separate in health care facilities like A.I., pregnancy diagnosis, health verification tests, prophylaxis, etc.
- (3) Being round the clock service, there should be residential accommodation for not only clinical and hospital staff but also for students on emergency and night duties and the clients accompanying the sick animals.
- (4) All the concerned staff of the clinical department shall be responsible for the treatments and allied public services and would invariable attend the clinics every forenoon. The staff as well as students should be properly attired and equipped for the performance of clinical duties.
- (5) The teaching institutions shall procure or provide:-
  - (a) teaching material in the form of clinical cases in sufficient number, variety and species;
  - (b) subsidized animal transport;
  - (c) free or subsidized treatment be considered to encourage large attendance in teaching veterinary hospitals; and
  - (d) free maintenance of cases of academic interest or typical cases of teaching value so that students can benefit from them.

(6) The minimum essentials of physical facilities and staff working in such hospitals shall be of standard as prescribed by the Accreditation and Equivalence Committee of the Council.

- 10. Evaluation and examination:-** (1)The object of examinations shall be to assess whether the student has been able to achieve a level of competence. For academic assessment, evaluation of practical aspects of the curriculum shall receive much greater emphasis leading to separate examinations requiring and the student to procure a minimum of fifty percent marks, in theory as well as in practical, in each such examination.
- (2) It shall be the responsibility of the teacher(s) to ensure that the topics to be covered in the theory and practical in each course shall be recorded through a lecture/practical schedule and distributed to the students at the beginning of each course. The Chairman of the Department or, as the case may be, an Incharge of a Section, shall ensure that the schedule is duly adhered.
- (3) The detailed guidelines for conducting of examination, internal and annual evaluation/grading, recording, preparation of mark lists, transcripts, etc., shall be conveyed from time to time, by the Council to the colleges/institutions to ensure uniform implementation of the provisions of these regulations.
- (4) The schedule of examination shall consist of internal and external examination in each subject.

### **CHAPTER-III, DEFICIENCY COURSE LEADING TO D.V.M DEGREE**

- 11. Deficiency Course leading to D.V.M Degree:** (1) With the introduction of five years Degree DVM programme in Fall Semester, 2000, this Deficiency course leading to DVM Degree shall be initiated by:-
- (a) The Faculty of Veterinary Science, University of agriculture, Faisalabad.
  - (b) College of Veterinary Sciences, Lahore; and
  - (c) Faculty of Animal Husbandry and Veterinary Sciences, Tandojam.
- 12. Eligibility of admission** All Animal Husbandry Graduates with B.Sc (Hons.) A.H degree including those serving in a Livestock and Dairy Development Department shall be eligible to seek admission in this Deficiency D.V.M Course. The Council shall persuade the Provincial Governments to extend maximum support to the said graduates to complete this course. Animal Husbandry Graduates who pass the B.Sc (A.H) (Hons.)

Examination, after the commencement of these regulations shall not be entitled for employment as Veterinary Officers in public or private sector nor shall they be issued licenses to practice as Veterinarian unless such graduates shall pass Deficiency D.V.M course.

Provided that Animal Husbandry Graduates having recognized post-graduate (M.Sc Hons.), M. Phil/Phd.) Specializations and working in their fields of specializations need not enroll themselves for the said course, unless they intend to go for veterinary practice in future.

**13. Commencement of admissions, etc:-** (1) The admission to this D.V.M course shall be made during months of July–August each year from amongst the eligible graduates of Animal Husbandry purely on merit and not more than thirty students shall be admitted at each campus.

(2) The Dean or, as the case may be, the Principal, of each concerned faculty or college shall grant admission in their respective teaching institutions, following these prescribed regulations.

**14. Duration and syllabus, etc:-** (1)The duration of Deficiency course leading to Doctor of Veterinary Medicine (DVM) degree shall be one complete calendar year. The course shall start in first week of September and shall spread over three semesters of four months each.

(2) The assigned teaching syllabus in each semester shall be as specified in the Second Schedule attached to these regulations.

**15. Examination and declaration of results:-** (1) After completion of three semesters, there shall be a two weeks preparatory break followed by a comprehensive final examination in applied fields of veterinary importance (Surgery, Medicine, Reproduction, Public Health Hygiene etc.) involving internal and external examiners following a uniform procedure to be adopted by the University in consultation with the Council.

(2) The total marks scored by a qualifying candidate shall be the aggregate of the following weightage of the different secured scores, namely:-

- |     |                                       |     |
|-----|---------------------------------------|-----|
| (a) | Fall Semester (internal evaluation)   | 20% |
| (b) | Winter Semester (internal evaluation) | 20% |

- |     |                                            |     |
|-----|--------------------------------------------|-----|
| (c) | Summer Semester (practical assignments -   |     |
| (d) | internal evaluations)                      | 20% |
| (e) | Final examination (Theory and practicals – |     |
| (f) | Internal/external evaluation)              | 40% |

**16. Award of D.V.M Degree:-** The respective University shall on the completion of the required essentials of the course, confer Doctor of Veterinary Medicine (D.V.M) Degree on the qualifying graduates.



## THE FIRST SCHEDULE

(See regulation 7)

SCHEME OF STUDY OF FIVE YEARS COMPOSITE DEGREE PROGRAMME (Replacing four years DVM and B.Sc (AH) Hons. Programmes)

### 1<sup>st</sup> Semester

COURSE NO.	COURSE TITLE	CREDIT/CONT ACT HOURS
ANATOMY	GENERAL AND SYSTEMIC ANATOMY	4(1-6)
BIOCHEMISTRY	GENERAL BIOCHEMISTRY	4(3-2)
PHYSIOLOGY	PHYSIOLOGY-I	4(3-2)
STAT	BIO STATISTICS AND COMPUTER APPLICATION	3(2-2)
LM	LIVESTOCK & POULTRY MANAGEMENT	3(2-2)
ZOOL	FISHERIES AND AQUACULTURE	3(2-2)
RS	RURAL SOCIOLOGY	2(2-0)
	<b>TOTAL</b>	<b>22(14-16)</b>

### 2<sup>ND</sup> SEMESTER

ANATOMY	COMPARATIVE ANATOMY	4(1-6)
ANATOMY	GENERAL HISTOLOGY & EMBRYOLOGY (DEVELOPMENT BIOLOGY)	4(1-6)
PHYSIOLOGY	PHYSIOLOGY-II	4(3-2)
BIOCHEMISTRY	APPLIED BIOCHEMISTRY	4(3-2)
ABG	ANIMAL GENETICS AND POPULATION GENETICS	4(3-2)
AN	PRINCIPLES OF ANIMAL NUTRITION	3(2-2)
	<b>TOTAL</b>	<b>23(13-20)</b>

### 3<sup>RD</sup> SEMESTER

BIOC.	MOLECULAR BIOLOGY	2(2-0)
ANATOMY	SYSTEMIC HISTOLOGY	3(1-4)
PATHOLOGY	GENERAL PATHOLOGY	4(3-2)
PARAS	GENERAL PARASITOLOGY AND PROTOZOOLOGY	3(2-2)
MICRO	GENERAL MICROBIOLOGY AND IMMUNOLOGY	4(3-2)
AN	ANIMAL FEEDS RESOURCES/FORAGE CONSERVATIONS	3(2-2)
ABG	ANIMAL BREEDING PLANS AND POLICIES	3(2-2)
	<b>TOTAL</b>	<b>22(15-14)</b>

**4<sup>TH</sup> SEMESTER**

PATHOLOGY	SYSTEMIC PATHOLOGY	4(3-2)
PARAS	HELMINTHOLOGY	4(3-2)
MICO	BACTERIOLOGY AND MYCOLOGY	3(2-1)
PHARM	GENERAL PHARMACOLOGY AND TOXICOLOGY	4(3-2)
AN	NUTRIENT REQUIREMENTS OF LIVESTOCK AND POULTRY	3(2-2)
AR	PHYSIOLOGY OF REPRODUCTION	3(2-2)
PH/LM	LIVESTOCK AND POULTRY HOUSING	2(1-2)
	<b><u>TOTAL</u></b>	<b>23(16-14)</b>

**5<sup>TH</sup> SEMESTER**

PHARM	SYSTEMIC PHARMACOLOGY AND THERAPEUTICS	4(3-2)
MICRO	GENERAL AND SYSTEMIC VIROLOGY	3(2-2)
PARAS	VETERINARY ENTOMOLOGY	3(2-2)
AN	FEED EVALUATION FORMULATION AND PROCESSING TECHNOLOGY	3(2-2)
ECON/MARKET	LIVESTOCK ECONOMICS AND BUSINESS MANAGEMENT	3(3-0)
EXT	LIVESTOCK EXTENSION EDUCATION	3(2-2)
LM	BUFFALO AND CATTLE PRODUCTION	3(2-2)
	<b><u>TOTAL</u></b>	<b>22(16-12)</b>

**6<sup>TH</sup> SEMESTER**

CMS	GENERAL MEDICINE	3(2-2)
CMS	GENERAL SURGERY	3(2-2)
LM	SHEEP AND GOAT PRODUCTION	2(1-2)
PH	AVIAN PRODUCTION AND MANAGEMENT	3(2-2)
DAIRY TECH.	DAIRY PRODUCTS AND PROCESSING TECHNOLOGY	3(2-2)
MEAT TECH	MEAT AND SLAUGHTER HOUSE BY PRODUCTS TECHNOLOGIES	3(2-2)
MICRO	LAB AND ZOO ANIMALS WELFARE AND MANAGEMENT	2(1-2)
CMS	PET ANIMALS WELFARE AND MANAGEMENT	2(1-2)
SSH	PAKISTAN STUDIES	1(1-0)
	<b><u>TOTAL</u></b>	<b>23(15-16)</b>

**7<sup>TH</sup> SEMESTER**

CMS	REGIONAL SURGERY	3(1-4)
CMS	SYSTEMIC MEDICINE-I	4(4-0)
AR	REPRODUCTIVE BIOTECHNOLOGY	2(2-0)
PARAS/PATH	MEAT INSPECTION	2(1-2)
MICRO	MILK AND MILK PRODUCTS INSPECTION	2(1-2)
LM	EQUINE AND CAMEL PRODUCTION	2(1-2)
PATH	CLINICAL PATHOLOGY	2(0-4)
AR	REPRODUCTION CLINIC-I	2(0-4)
CMS	MEDICINE CLINIC-I	2(0-4)
CMS	SURGERY CLINIC-I	2(0-4)
ISLAMIC STUDIES	ISLAMIC STUDIES OR ETHICS (FOR NON-MUSLIMS)	1(1-0)
	<b><u>TOTAL</u></b>	<b>23(10-26)</b>

**8<sup>TH</sup> SEMESTER**

CMS	SYSTEMIC MEDICINE-II	3(3-0)
CMS	RADIOLOGY, SHOEING & SOUNDNESS	2(1-2)
AR	OBSTETRICS & GENITAL DISEASES	4(2-4)
CMS	MEDICINE CLINIC-II	3(0-6)
CMS	SURGERY CLINIC-II	3(0-6)
AR/MICRO	REPRODUCTION CLINIC-II	3(0-6)
LM/PH	LIVESTOCK/POULTRY FARMS OPERATIONS	5(1-8)
	<b><u>TOTAL</u></b>	<b>23(7-32)</b>

**9<sup>TH</sup> SEMESTER**

CMS	VETERINARY EPIDEMIOLOGY AND PUBLIC HEALTH	4(2-4)
PATHOLOGY	POULTRY PATHOLOGY	3(2-2)
ALL DEPTTS:	BIODIVERSITY AND HAZARDS MANAGEMENT	2(2-0)
CMS	TECHNICAL REPORT WRITING AND PRESENTATION	1(1-0)
CMS	MEDICINE CLINIC-III	3(0-6)
AR	SURGERY CLINIC-III	3(0-6)
LM/PH	REPRODUCTION CLINIC-III	3(0-6)
	LIVESTOCK/POULTRY FARMS OPERATIONS	5(1-8)
	<b><u>TOTAL</u></b>	<b>24(8-32)</b>

## TOTAL CREDIT HOURS FOR ALL SEMESTERS

Semester	Total Credits	Credit Hours	
		Lectures	Practicals
1.	22	14	16
2.	23	12	22
3.	22	15	14
4.	23	16	14
5.	22	16	12
6.	23	15	16
7.	23	10	26
8.	23	7	32
9.	24	8	32
<b>Total</b>	<b>205</b>	<b>113</b>	<b>184</b>

### FOLLOWED BY INTERNSHIP PROGRAMME FOR SIX CALENDAR MONTHS

#### NO CREDIT HOURS BUT COMPULSORY ATTENDANCE REQUIRED

The objective of internship shall be to provide the D.V.M students pre-service field training in the areas of Veterinary Medicine, Animal Husbandry and allied fields. The students shall spend a total of six months at approved teaching hospitals, livestock and poultry farms (Govt. and Private), disease diagnostic laboratories and other relevant installations (milk plants, feed mills, abattoirs, farmers cooperatives etc. (Govt. and Private) where they shall undertake skills and management developments training. After the completion of the term of internship, the student shall be required to submit a report and present it as a seminar.

The students shall be graded “S” (Satisfactory) or ‘NS” (Not satisfactory) based on report seminar presentation and viva voce.

- b) The detailed contents of each course of study shall be developed by the PVMC Committee on Curricula/Syllabi in consultation with subject specialists available in the country within and outside the concerned Faculties/Colleges of the Universities. The same committee shall periodically review this curriculum and syllabus for its continuous updation and improvement.

## THE SECOND SCHEDULE

(See regulation 14)

### SYLLABUS FOR CONDENSED/DEFICIENCY DVM COURSE

SEMESTER – WISE DISTRIBUTION OF COURSES

		(SEPTEMBER TO DECEMBER)
V. An-1	Functional Anatomy and Histology	4(2-4)
V. Pm-1	Pharmacology and Therapeutics	3(2-2)
V Pt-1	General and Systemic Pathology	4(2-4)
V. Pr-1	Veterinary Parasitology	4(2-4)
V. Mb-1	Microbiology Immunology, Virology	4(2-4)
V. Ph-1	Applied Physiology	2(0-4)
	<b>Total</b>	<b>21(0-4)</b>
<b>WINTER SEMESTER</b>		(JANUARY TO APRIL)
V. Md-1	Clinical and preventive Medicine	5(2-4)
V. Ar-1	Breeding soundness obstetrics and Genital Diseases	4(2-4)
V. Sg-1	Veterinary Surgery	4(2-4)
V. Pt-2	Clinical and Poultry Pathology	4(2-4)
V. Mb-3	Veterinary Epidemiology, Food Hygiene and Meat Inspection	4(2-4)
	<b>Total</b>	<b>21(10-20)</b>
<b>SUMMER SEMESTER</b>		(MAY TO AUGUST)
V. Md-3	Medicine Clinic and Diagnostic Techniques and procedures for various Diseases	5(1-8)
V. Sg-3	Surgery Clinic and various Surgical Operations	5(1-8)
V. Ar-3	Animal Reproduction Clinic and Practicals on Breeding, Soundness Reproductive Health Management and Obstetrical Procedures	5(1-8)
V. Mb/Pr/Pt	Practicals on Public Health Hygiene related problems (Meat, Milk, other Foods of animal origin)	3(1-4)
	<b>Total</b>	<b>18(4-28)</b>
<b><u>Grand Total</u></b>		<b>60 Credit hours</b>

[No. 10-80/87-D&V]

(Dr. Alamdar Hussain Malik)  
Secretary and Registrar,  
Pakistan Veterinary Medical Council,