

# Gomal College of Veterinary Sciences

## MISSION, VISION, OBJECTIVES AND OUTCOMES

### **Mission Statement**

Gomal College of Veterinary Sciences is aimed at improving quantitative & qualitative human resources to provide qualified, trained, professional & experienced manpower in the discipline of livestock, dairy & poultry sector so as to meet the growing needs & demand of maximum production capacity, processing on scientific lines, appropriate consumption pattern, marketing value added export oriented livestock & poultry products.

### **Vision Statement**

Gomal College of Veterinary Sciences is aimed at enhancing the long term development in the specified fields of livestock, dairy and poultry sectors.

# **DVM Program**

## **(Program Mission, Objectives and Outcomes)**

**Standard 1-1: The program must have documented measurable objectives that support faculty / college and institution mission statements**

### **Mission Statement for DVM**

To build sound concepts through effective teaching, laboratory sessions and 6 months internship the field of Veterinary Sciences and its emerging fields. The supporting subjects will enhance the practicality of theories and concepts of applied Veterinary Sciences to bring about technically and professionally sound graduates.

### **Program objectives**

The College has the objectives to provide the knowledge in Veterinary Sciences on both theoretical and practical lines so that they can meet the future challenges and be able to:

1. To produce highly trained & skilled Veterinary Doctors & Scientist.
2. To overcome poverty & sustain rural development.
3. To develop a connecting link among Livestock education, Research & extension program.
4. To provide the students with strong foundation in theoretical as well as practical knowledge of Management & disease control etc.
5. To help the farmers to know about their knowledge relevant to growth & production etc.
6. Initiation of training (Skills, Knowledge & ability) of students, teachers & farmers.
7. To provide qualified, trained, professional & experienced manpower in order to meet the growing need & demand of the country.
8. To explore latest & more advanced research & development avenues in livestock sector.
9. To open avenues of advance scientific & technological knowledge & training/research activities & extension services in Livestock sector.

<b>Objective</b>	<b>How measured</b>	<b>When measured</b>	<b>Improvement identified</b>	<b>Improvement made</b>
4,5,7,8,9	Student Course Evaluation Questionnaire	2010	<ul style="list-style-type: none"> <li>➤ Lack of Course organization.</li> <li>➤ Lack of learning resources.</li> <li>➤ Quality of delivery needs improvement.</li> <li>➤ Tutorial and practical</li> </ul>	
1,2,3,6	Survey of Graduating Students	2010	<ul style="list-style-type: none"> <li>➤ Program objectives achievements need more attention</li> <li>➤ Written and oral communication skill.</li> <li>➤ Education environment is not up to the mark.</li> </ul>	

**Standards1-2: The program must have documented outcome for graduating students .It must be demonstrated that the outcome support the program objective and that graduating students are capable of performing these outcomes.**

### **Program Outcomes**

Program objectives will result in following outcomes and graduated students are expected

1. To become highly trained & skilled Veterinary Doctors.
2. To be able to sustain rural development.
3. To have the ability to develop a connecting link among Livestock education, Research & extension program.

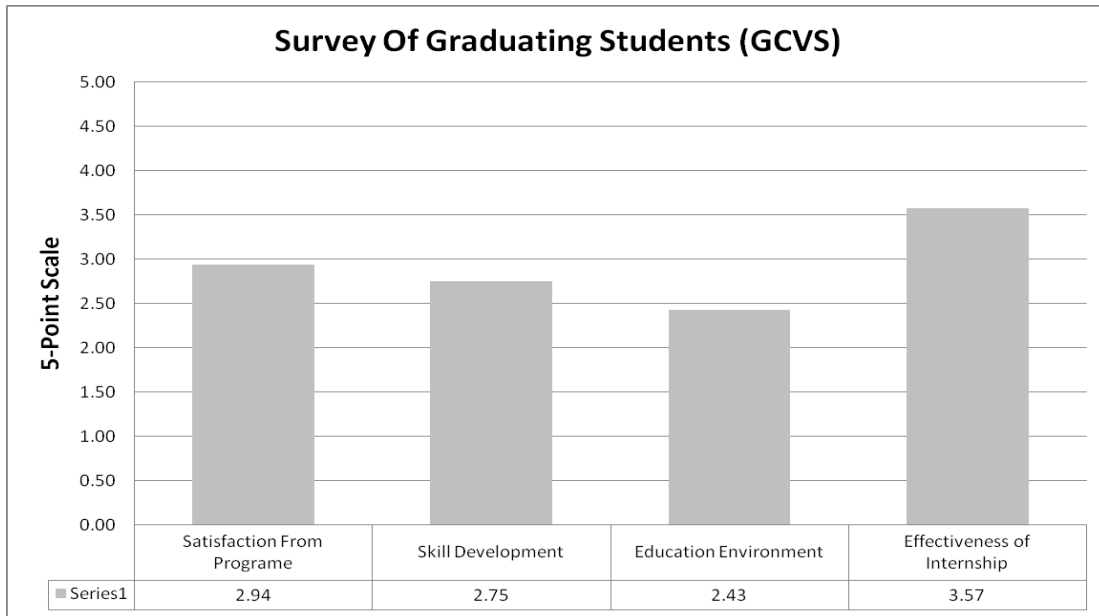
4. To have strong foundation in theoretical as well as practical knowledge of Management & disease control etc.
5. To have the ability to help the farmers to know about their knowledge relevant to growth & production etc.
6. To initiate the training (Skills, Knowledge & ability) of students, teachers & farmers.
7. To have the ability to provide qualified, trained, professional & experienced manpower in order to meet the growing need & demand of the country.
8. To have the ability to explore latest & more advanced research & development avenues in livestock sector.
9. To have the ability to open avenues of advance scientific & technological knowledge & training/research activities & extension services in Livestock sector.

**Objectives versus Outcomes**

Program Objectives	Program Outcomes								
	1	2	3	4	5	6	7	8	9
1	√								
2		√							
3			√						
4				√					
5					√				
6						√			
7							√		
8								√	
9									√

**Standard 1-3: The results of programs assessment and the extent to which they are used to improve the program must be documented**

After the assessment of Graduating students' survey, the strength and weaknesses identified.



**Strengths**

Satisfaction from program, effectiveness of internship

**Weaknesses / Areas for improvement**

- Program objective achievement need more attention
- Skill development
- Education Environment
- Oral & Written communication skill
- **List future development plan for the program**
  - Course division (lecture wise)
  - To start the M. Phil program
  - Stress on Research Work
  - Latest Labs Equipments

**Standard 1-4: The department must assess its overall performance periodically using quantifiable measures.**

Present student's enrolment (DVM)

<b>Years</b>	<b>No of students</b>	<b>No of graduate students</b>
2009	71	68
2008	64	60
2007	29	28

## Criterion 2: Curriculum Design & Organization

- A. Title of Degree Program:** DVM
- B. Definition of credit hour:** One credit hour means a class of one hour per week for one term/ semester. One term means 15 weeks continuous duration program. However in case of Lab work, two hours Lab work means one credit hour.
- C. Degree Plan:** The table-2 shows the course division of the program.
- D. Curriculum breakdown:** No breakdown available for the courses. Needs improvement

### Figure: 1

Following matrix links courses in the program to program outcomes

Courses	Program Outcomes								
	1	2	3	4	5	6	7	8	9
<b>1st term</b>									
General and Systemic Anatomy	√								
Physiology-I					√				
Livestock & poultry Management								√	
General Biochemistry			√						
Bio-statistics and Computer Application									√
Fisheries and Aquaculture				√					
Rural Sociology						√			
<b>2nd term</b>									
Comparative Anatomy	√								
General Histology & Embryology (Development Biology)				√					
Physiology-II		√							
Animal Genetics & Population Genetics						√			
Applied Biochemistry								√	
Principles of Animals Nutrition						√			
<b>3rd term</b>									
Systemic Histology		√							

General Pathology				√					
General Parasitology & Protozoology						√			
General Micro Biology & immunology			√						
Animal Feed Resources/Forages Conservation							√		
Animal Breeding Plans & Policies				√					
Molecular Biology							√		
<b>4<sup>th</sup> term</b>									
Systemic Pathology	√								
Helminthology							√		
Bacteriology & Mycology			√						
General Pharmacology & Toxicology					√				
Nutrient Requirements of Livestock & Poultry								√	
Physiology of Reproduction	√								
Livestock & Poultry Housing									√
<b>5<sup>th</sup> term</b>									
Systematic Pharmacology & Therapeutics			√						
General Systematic Virology							√		
Veterinary Entomology				√					
Feed Evaluation Formulation & Processing Technology					√				
Buffalo and Cattle Production								√	
Livestock Extension Education									√
Livestock Economics & Business Management			√						
<b>6<sup>th</sup> term</b>									
General Medicine			√						
General Surgery				√					
Sheep and Goat Production		√							
Avian Production and Management					√				
Dairy Products and Processing Technology								√	



Meat and Slaughter House by Products Technology			√						
Lab and Zoo Animal Welfare and Management		√							
Pet Animals Welfare and Management					√				
Pakistan Studies								√	
<b>7<sup>th</sup> term</b>									
Regional Surgery		√							
Systematic Medicine-I					√				
Reproductive Biotechnology		√							
Meat inspection	√								
Milk & Milk Products inspection									√
Equine and Camel Production				√					
Clinical Pathology						√			
Reproduction Clinic-I			√						
Medicine Clinic-I						√			
Surgery Clinic-I				√					
Islamic Studies / Ethics						√			
<b>8<sup>th</sup> term</b>									
Systematic Medicine-II									
Radiology Shoeing and Soundness			√						
Obstetrics & Genital Diseases							√		
Medicine Clinic-II			√						
Surgery Clinic-II					√				
Reproduction Clinic-II							√		
Livestock/poultry Farms Operations			√						
<b>9<sup>th</sup> term</b>									
Veterinary Epidemiology & Public Health	√								
Poultry Pathology			√						
Technical Report Writing & Presentation							√		
Medicine Clinic-III				√					

Surgery Clinic-III		√							
Reproduction Clinic-III						√			
Livestock/Poultry Farms Operations		√							
Biodiversity and Hazards Management								√	

Table 1: Courses versus program outcomes

Figure 3: Courses Division term wise

<b>1<sup>ST</sup> TERM</b>					
<b>Course Code</b>	<b>BASIC COURSES</b>	<b>CREDIT HOURS</b>	<b>Course Code</b>	<b>SUPPORTING COURSES</b>	<b>CREDIT HOURS</b>
Anatomy	General and Systemic Anatomy	4(1-6)	Biochemistry	General Biochemistry	4(3-2)
Physiology	Physiology-I	4(3-2)	State	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 Credit Hours Basic Courses</b>		<b>11(6-10)</b>	<b>Total Credit Hours Supporting Courses</b>		<b>12(9-6)</b>
Total Credit Hours = Basic Courses + Supporting Courses $11(6-10) + 12(9-6) = 23(15-16)$					
<b>2<sup>ND</sup> TERM</b>					
<b>Course Code</b>	<b>BASIC COURSES</b>	<b>CREDIT HOURS</b>	<b>Course Code</b>	<b>SUPPORTING COURSES</b>	<b>CREDIT HOURS</b>
Anatomy	Comparative Anatomy	4(1-6)	Biochemistry	Applied Biochemistry	4(3-2)
Anatomy	General Histology & Embryology (Development Biology)	4(1-6)			
Physiology	Physiology-II	4(3-2)			
ABG	Animal Genetics & Population Genetics	4(3-2)			
AN	Principles of Animals Nutrition	3(2-2)			
<b>Total Credit Hours Basic Courses</b>		<b>19(10-18)</b>	<b>Total Credit Hours Supporting Courses</b>		<b>4(3-2)</b>
Total Credit Hours = Basic Courses + Supporting Courses $19(10-18) + 4(3-2) = 23(13-20)$					
<b>3<sup>rd</sup> TERM</b>					
<b>Course Code</b>	<b>BASIC COURSES</b>	<b>CREDIT HOURS</b>	<b>Course Code</b>	<b>SUPPORTING COURSES</b>	<b>CREDIT HOURS</b>
Anatomy	Systemic Histology	3(1-4)	BIOC	Molecular Biology	2(2-0)
Pathology	General Pathology	4(3-2)			
PARAS	General Parasitology & Protozoology	3(2-2)			
Micro	General Micro Biology & Immunology	4(3-2)			

AN	Animal Feed Resources/Forages Conservation	3(2-2)		
ABG	Animal Breeding Plans & Policies	3(2-2)		
<b>Total Credit Hours Basic Courses</b>		<b>20(13-14)</b>	<b>Total Credit Hours Supporting Courses</b>	
Total Credit Hours =		Basic Courses + Supporting Courses		<b>2(2-0)</b>
		<b>20(13-14) + 2(2-0)</b>		<b>= 22(15-14)</b>

#### 4<sup>th</sup> TERM

Course Code	BASIC COURSES	CREDIT HOURS	Course Code	SUPPORTING COURSES	CREDIT HOURS
Pathology	Systemic Pathology	4(3-2)			
PARAS	Helminthology	4(3-2)			
Micro	Bacteriology & Mycology	3(2-2)			
Pharm	General Pharmacology & Toxicology	4(3-2)			
AN	Nutrient Requirements of Livestock & Poultry	3(2-2)			
AR	Physiology of Reproduction	3(2-2)			
PH/LM	Livestock & Poultry Housing	2(1-2)			
<b>Total Credit Hours Basic Courses</b>		<b>23(16-14)</b>	<b>Total Credit Hours Supporting Courses</b>		
Total Credit Hours =		Basic Courses + Supporting Courses			
		<b>23(16-14) + 00</b>		<b>= 23(16-14)</b>	

#### 5<sup>th</sup> TERM

Course Code	BASIC COURSES	CREDIT HOURS	Course Code	SUPPORTING COURSES	CREDIT HOURS
Pharm	Systematic Pharmacology & Therapeutics	4(3-2)	EXT	Livestock Extension Production	3(2-2)
Micro	General Systematic Virology	3(2-2)	Eco/Market	Livestock Economics & Business Management	3(3-0)
PARAS	Veterinary Entomology	3(2-2)			
AN	Feed Evaluation Formulation & Processing Technology	3(2-2)			
LM	Buffalo and Cattle Production	3(2-2)			
<b>Total Credit Hours Basic Courses</b>		<b>16(11-10)</b>	<b>Total Credit Hours Supporting Courses</b>		<b>06(5-2)</b>
Total Credit Hours =		Basic Courses + Supporting Courses			
		<b>16(11-10) + 06(5-2)</b>		<b>= 22(16-12)</b>	

#### 6<sup>th</sup> TERM

Course Code	BASIC COURSES	CREDIT HOURS	Course Code	SUPPORTING COURSES	CREDIT HOURS
CMS	General Medicine	3(2-2)	SSH	Pakistan Studies	1(1-0)
CMS	General Surgery	3(2-2)			
LM	Sheep and Goat Production	2(1-2)			
PH	Avian Production and Management	3(2-2)			
Diary Tech	Dairy Products and Processing Technology	3(3-2)			

Meat Tech	Meat and Slaughter House by Products Technology	3(2-2)			
Micro	Lab and Zoo Animal Welfare and Management	2(1-2)			
CMS	Pet Animals Welfare and Management	2(1-2)			
<b>Total Credit Hours Basic Courses</b>		<b>21(13-16)</b>	<b>Total Credit Hours Supporting Courses</b>		<b>01(1-0)</b>
Total Credit Hours = Basic Courses + Supporting Courses <b>21(13-16) + 01(1-0) = 22(14-16)</b>					

### 7<sup>th</sup> TERM

Course Code	BASIC COURSES	CREDIT HOURS	Course Code	SUPPORTING COURSES	CREDIT HOURS
CMS	Regional Surgery	3(1-4)	Islamic Stud:	Islamic Studies / Ethics	1(1-0)
CMS	Systematic Medicine-I	4(4-0)			
	Reproductive Biotechnology	2(1-2)			
PARAS/PATH	Meat inspection	2(1-2)			
Micro	Milk & 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)			
<b>Total Credit Hours Basic Courses</b>		<b>23(9-28)</b>	<b>Total Credit Hours Supporting Courses</b>		<b>01(1-0)</b>
Total Credit Hours = Basic Courses + Supporting Courses <b>23(9-28)+ 01(1-0) = 24(10-28)</b>					

### 8<sup>th</sup> TERM

Course Code	BASIC COURSES	CREDIT HOURS	Course Code	SUPPORTING COURSES	CREDIT HOURS
CMS	Systematic Medicine-II	3(3-0)			
CMS	Radiology Shoeing and 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>Total Credit Hours Basic Courses</b>		<b>23(10-32)</b>	<b>Total Credit Hours Supporting Courses</b>		
Total Credit Hours = Basic Courses + Supporting Courses <b>23(10-32)+ 00 = 23(10-32)</b>					

### 9<sup>th</sup> TERM

Course Code	BASIC COURSES	CREDIT HOURS	Course Code	SUPPORTING COURSES	CREDIT HOURS
CMS	Veterinary Epidemiology & Public Health	4(2-4)		Biodiversity and Hazards Management	2(2-0)

Pathology	Poultry Pathology	3(2-2)		
	Technical Report Writing & Presentation	1(1-0)		
	Medicine Clinic-III	3(0-6)		
	Surgery Clinic-III	3(0-6)		
	Reproduction Clinic-III	3(0-6)		
LM/PH	Livestock/Poultry Farms Operations	5(1-8)		
<b>Total Credit Hours Basic Courses</b>		<b>22(6-32)</b>	<b>Total Credit Hours Supporting Courses</b>	<b>2(2-0)</b>
Total Credit Hours = Basic Courses + Supporting Courses <b>22(6-32)+ 02(2-0) = 24(8-32)</b>				

**Table 2:** course division

**Standard 2-2: Theoretical background, problems analysis and solution design must be stressed within the program's core material.**

<b>Automation and Control Concentration (Regular Stream)</b>	
<b>Elements</b>	<b>Courses</b>
<b>Theoretical</b>	Physiology-I, General Biochemistry, Rural Sociology, Physiology-II, Animal Genetics & Population Genetics, Applied Biochemistry, General Pathology, Molecular Biology, Systemic Pathology, Helminthology, General Pharmacology & Toxicology, Livestock Economics & Business Management, Pakistan Studies, Systematic Medicine-I, Islamic Studies / Ethics, Systematic Medicine-II, Reproduction Clinic-II, Technical Report Writing & Presentation, Biodiversity and Hazards Management
<b>Problem Analysis</b>	Livestock & poultry Management, Bio-statistics and Computer Application, Fisheries and Aquaculture, Principles of Animals Nutrition, General Parasitology & Protozoology, Animal Feed Resources/Forages Conservation, Animal Breeding Plans & Policies, Bacteriology & Mycology, Nutrient Requirements of Livestock & Poultry, Physiology of Reproduction, Livestock & Poultry Housing, Systematic Pharmacology & Therapeutics, General Systematic Virology, Veterinary Entomology, Feed Evaluation Formulation & Processing Technology, Buffalo and Cattle Production, Livestock Extension Education, General Medicine, General Surgery, Avian Production and Management, Dairy Products and Processing Technology, Meat and Slaughter House by Products Technology, Reproductive Biotechnology, Meat inspection, Milk & Milk Products inspection, Equine and Camel Production, Radiology Shoeing and Soundness, Obstetrics & Genital Diseases, Veterinary Epidemiology & Public Health, Poultry Pathology
<b>Solution Design</b>	General and Systemic Anatomy, Comparative Anatomy, General Histology & Embryology, Systemic Histology, General Micro Biology & immunology, Sheep and Goat Production, Physical Techniques in Bio Chemistry, Microbiological and Immunology, Molecular Biology and Biotechnology, Enzymes and Chemotherapy, Sheep and Goat Production, Lab and Zoo Animal Welfare and Management, Pet Animals Welfare and Management, Regional Surgery, Clinical Pathology, Reproduction Clinic-I, Medicine Clinic-I, Surgery Clinic-I, Medicine Clinic-II, Surgery Clinic-II, Livestock/poultry Farms Operations, Medicine Clinic-III, Surgery Clinic-III, Reproduction Clinic-III, Livestock/Poultry Farms Operations

**Table 2:** Fulfilling requirements in standard 2-2

**Standard2-3: The curriculum must satisfy the mathematics and basic sciences requirements for the program as specified by the respective accreditation body**

Specific mathematics course is not present in the program but “Bio-statistics and Computer Application” course is offered in a 1st term. Improvements needs in this area.

As for basic sciences this program is totally base on science subjects.

**Standard 2-4: The curriculum must satisfy the major requirements for the program as specified by the respective accreditation body**

The curriculum in the program is fully satisfied the major requirements and objectives of the program.

**Standard 2-5: The curriculum must satisfy humanities, social sciences, arts, ethical, professional and other discipline requirements for the program as specified by the respective accreditation body**

Table 3 shows how the DVM program satisfies requirements in standards 2-3, 2-4 and 2-5. It’s clear from the table that all requirements are met but only in the area of English, communication Skill and mathematics needs little attention.

DVM	Mathematics and Basic Sciences		DVM Topics				Humanities and Social Sciences	
			Core		Elective			
	Required	Present	Required	Present	Required	Present	Required	Present
	1	0	58	58	0	0	2	2

Table.3: Standard 2-3, 2-4, 2-5 requirements

**Standard 2-6: Information technology component of the curriculum must be Integrated throughout the program**

Information technology component is the part of curriculum which delivers the knowledge of different software and computerized lab equipments. This area fulfills the requirements.

**Standard 2-7: Oral and written communication skills of the students must be developed and applied in the program**

No course present for English and Communication skills development. Improvement required in this area.

### Criterion 03: DVM Labs

Lab Title	Location & area	Objectives	Adequacy for Instruction	Courses Taught	Major apparatus and Equipments	Safety regulations and first aid box
Microbiology Lab	WxL 22x36.6	To train the DVM students practically in the field microbiology	DVM	1.General Micro Biology & immunology, 2.Bacteriology & Mycology, 3.General Systematic Virology, 4.Lab and Zoo Animal Welfare and Management	1. Cabinet autoclave 2. Laminar flow cabinet 3. Hot air oven 4. Incubator 5. Cold storage freezer 6. Magnetic sterile 7 Orbator shaker 8. Tissue Culture microscope	Not available
Nutrition & Live stock Management Lab	WxL 22x36.6	To train the students in the practical field of animal nutrition composed feed, carbohydrates, proteins, minerals and vitamins.	DVM	1. Principle of animal nutrition 2. Field resources / forage conservation. 3. Nutrient requirements 4. Buffalow & cattle production 5. Sheep and goat production	1. Incubator 2. crude fiber opertaus 3. Funiser 4. Gerber machine 5. Digestion destination operatus 6. Milk analyzer 7. Water distillation plant 8. Berdizzo costilator 9. Automatic vaccinator	Not available
Veterinary Physiology & pharmacology Lab	WxL 22x36.6	To train the students practically in the field of physiology & pharmacology	DVM	1. Physiology of digestion & lactation 2. Cardiovascular respiratory & renar physiology 3. Physiology reproduction 4. Nero Muscular & endocrine physiology	1. Incubator 2. Microscope 3. Micro Kineto orit centrifuge 4. Orbit shaker 5. Magnetic stire 6. Centrifuge machine 7. Electronic balance 8. ESR staid 9. Kymograph 10. Large centrifuge meal water bath.	Not available
Parastology	WxL 22x36.6	To train the students practically to check the parasite related issues in animals	DVM	1. Helminthology 2. Entomology 3. General parastology 4. Meet sloter	1. Rotary evaporators 2. Chiller compressors 3. Deep freezers 4. Incubators	Not available
Anatomy Lab	WxL 22x36.6	To train the students practically in the field of anatomy	DVM	General and systemic Anatomy, Comparative Anatomy .		Not available
Histology Lab.	WxL 22x36.6	To train the students	DVM	Gen. Histology and Embryology		Not available



		practically in the field of histology & Embryology				
Pathology Lab.	WxL 22x36.6	To train the students practically in the field of live stock and avian management	DVM	Systemic Pathology, Avian Production and Management, Livestock Poultry Farms Operations		Not available
Computer Lab	WxL 22x36.6	To train the students practically in the field of computing & bio-statistics	DVM	Biostatistics and Computer applications		Not available
Animal Reproduction Lab	WxL 22x36.6	To train the students practically in the field of Biotechnology & genital diseases	DVM	Physiology of Reproduction, Reproduction Clinic-I and II, Reproductive Biotechnology, Obstetric and Genital Diseases.		Not available
Veterinary Medicine Lab	WxL 22x36.6	To train the students practically in the field of medicine and animal welfare management	DVM	Gen. Medicine Pet Animal Welfare and Management, Systemic Medicine-I and II, Medicine Clinic-I and II		Not available
Veterinary Surgery Lab	WxL 22x36.6	To train the students practically in the field of surgery radiology and surgery clinic	DVM	Gen. Surgery, Regional Surgery, Radiology Shoeing and Soudness, Surgery Clinic-I and II		Not available

**Standard- 3-1: (Lab manuals/documentation/instruction for experiments must be available and readily accessible to faculty and students.**

No Lab manuals, nor rules and regulations for safety are available. No first aid box in case of emergency. Lab manuals, safety regulations and first aid box will be considered in implementation plan.

**Standard 3-2: There must be adequate support personal for instruction and maintaining the computing laboratories**

Department has Computer Lab equipped with 25 computers. Lab assistant is available all the time to guide and help students' regards practical work. There are approximately 450 students enrolled in the program simultaneously and computers are only 25 so it's very difficult for IT section to manage these all to fulfill the requirements. Computer lab needs more computers to fulfill the information technology requirements for the program.

**Standard 3-3: The University computing infrastructure and facilities must be adequate to support programs objectives.**

The University has IT cell to provide the facilities of internet and Troubleshooting. The internet facility is not up to the mark to meet the program objectives in information technology. Most of the time internet is not available to students. Improvement needs in this area.

## **Criterion 4: Student Support and Advising**

**Standard 4.1: Courses must be offered with sufficient frequency and number for students to complete the program in a timely manner.**

All the courses are first discussed by departmental academic committee. The recommendations are then discussed in the Board of Studies meeting comprising of some senior professors of the university and experts of curriculum from other universities and affiliated colleges. The recommendations of this board are further submitted to Academic committee for approval and onward submission to the syndicate. In this way the course and the curriculum passes and screens through a number of levels.

**Standard 4-2: Courses in the major areas of study must be structured to ensure effective interaction between student, faculty and teacher assistants.**

No proper procedure to assign the responsibility to structure courses and to maintain the consistency of contents. Improvement needs in this area to fulfill the requirements.

**Standard 4-3 Guidance on how to complete the program must be available to all students and access to academic advising must be available to make course decisions and careers choices.**

A faculty member is assigned responsibility to discuss and coordinate with student to make future plan and project work efficiently. Also the said faculty member is responsible for organizing workshops but no arrangements of workshops here. Improvements needs in this area.

## **Criterion 5: Process Control**

**Standard 5-1: The process by which students are admitted to the Program must be based on quantitative and qualitative criteria and clearly documented. The process must be periodically evaluated to ensure that it is meeting its objectives.**

A very transparent system for admission in DVM program. No test and interview is taken for admission. Admission in this program based on the following selection criteria.

1. F. Sc (Pre-Medical)
2. Candidate must have passed in at least 2<sup>nd</sup> division.
3. Age limit is 22 years for admission (Relax able up to 5 year in genuine cases).
4. Merit formula:

$$\text{SSC} * 1 = X$$

$$\text{HSSC} * 2 = Y$$

$$\text{Merit} = X + Y / 3$$

**Standard 5-2: The process by which students are registered in the program and monitoring of students progress to ensure timely completion of the program must be documented.**

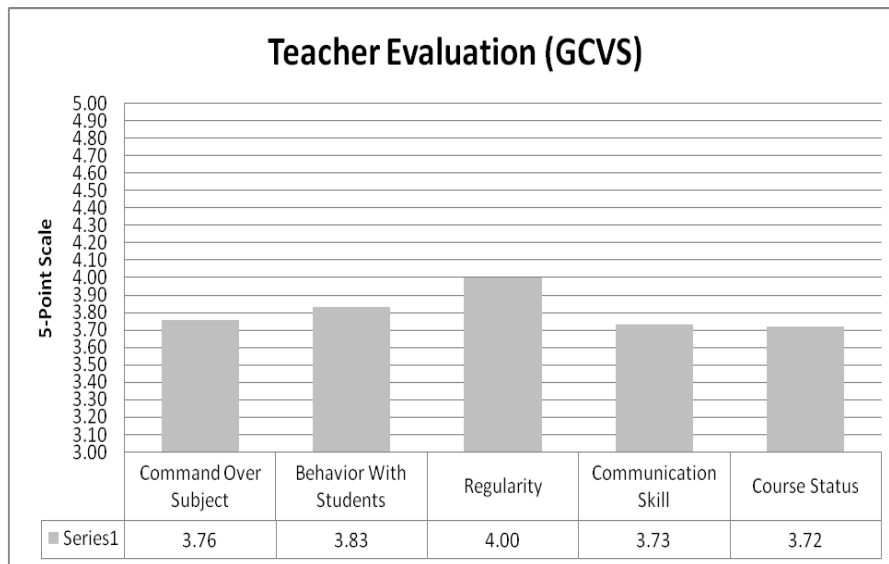
At the start of term applications are invited through leading news papers. After getting the applications students are scrutinized with reference to pre-requisite of the program. Merit list of eligible candidates is made according the formula given in standard 5-1.

To monitor the students' performance we have internal as well as external base evaluation system. In every term at least 2 tests are conducted which carry 20 % marks along with assignments at the end of the term, external exam is conducted for 80 %. The result is based over the combined assessment of the students.

**Standard 5-3: The process of recruiting and retaining highly qualified faculty members must be in place and clearly documented. Also processes and procedures for faculty evaluation.**

In order to attract qualified faculty , different domains of computing is defined in the programs and as per the expertise required , demand for the staff along with the expertise details is send to Administration for advertising the positions in leading English and Urdu News papers. As per the application received, the scrutiny committee short list the applicants for the evaluation test as per the criteria advertised. A third party is involved for conducting the test to make the process transparent and successful candidates of the test are further passed through a selection board in which a panel of experts interviews the candidate. After the selection board syndicate gives the approval of these selections, there after appointment is offered to the faculty.

There was no systematic process before to evaluate the faculty members, now after establishment of QEC each faculty member is evaluated by the students via “Teacher Evaluation Questionnaire”.



**Standard 5-4: The process and procedures used to ensure that teaching and delivery of course material to the students emphasize active learning and that course learning outcome is met. The process must be periodically evaluated to ensure that it is meeting the objectives.**

In order to ensure that the teaching is effective a quarterly survey is conducted by the University QEC and the findings are communicated to the concern faculty members. After completion of survey assessment team meeting is called to assess the process and make implementation plan for the said department.

**Standard 5-5: The process that ensures that graduates have completed the requirements of the program must be based on standards, effective and clearly documented procedures. This process must be periodically evaluated to ensure that it is meeting its objectives.**

No proper procedures to assure that the graduates meet the program requirements or not. This area needs concentration to develop this procedure. Plan required for this area.

## **Criterion 06: Faculty**

**Standard 6-1:** There must be enough full time faculty who are committed to the program to provide adequate coverage of the program areas / courses, continuity and stability. The interests and qualifications of all faculty members must be sufficient to teach all courses, plan, modify and update courses and curricula. All faculty members must have a level of competence that would normally be obtained through graduate work in the discipline. The majority of the faculty must hold a Ph. D. in the Discipline.

The following table indicate program areas and number of faculty in each area

<b>Program Area</b>	<b>Courses in the area and average number of sections per year</b>	<b>Number of faculty members in each area</b>	<b>Number of faculty with PhD</b>
Livestock Management		2	Nil
Medicine		2	Nil
Reproduction		1	Nil
Parasitology		1	Nil
Physiology		1	Nil
Biochemistry		1	Nil
Microbiology		1	Nil
Anatomy & Histology		1	Nil
Pharmacology		1	Nil
Pathology		1	Nil
Surgery		1	Nil
	<b>Total :</b>	<b>13</b>	<b>0</b>

It is clear from the above table that the information provided in the faculty members resumes that this standard is satisfied.

**Standard 6-2: All faculty members must remain current in the discipline and sufficient time must be provided for scholarly activities and professional development. Also, effective programs for faculty development must be in place.**

The Veterinary college has not been started the research classes yet. The principle planned to start the M. Phil and Ph.D. classes in the coming session. Most of the faculty members have simple DVM degree not M. Phil or Ph.D. No research work is done here nor any professional development. No programs schedule nor previously arranged for the development of faculty members. Improvements needs in this area.

**Standard 6-3: Faculty members should be motivated and have job satisfaction to excel in their profession**

There are different programs for faculty benefits and there motivation i.e.

- 1) Course work load is little high and class strength is large for getting quality in education.
- 2) Attractive salary packages.
- 3) Paid vacations.
- 4) Hard area allowance.

*For survey chart see the **Graph: 1 Criterion: 8 Institutional supports Standard 8-1***

A faculty survey was conducted and the response is as below:

### **Faculty Comments:**

**Q.14 What are the best program/factors currently available in your department that enhance your motivation and job satisfaction?**

1. (i)Need of M.Phil & Ph.D teachers  
(ii)Need of Research facility including Dairy farm expansion & also Poultry farm.



2. Initiation of M.Phil and Ph.D Program providing chance to visit the renowned institution of Pakistan and abroad. Providing chances to improve the Qualification of teachers.
3. (i) Teacher training programs for practical work.  
(iii) Availability of proper setup for Research work in evening time.
4. Information Technology, Multimedia Facilities, Overhead Projectors, Epidia scopes, Libraries and Study tours.
5. i) Study Tours.  
ii) Provision of grounds (Indoor & Outdoor) for Physical & Mental Exercise
6. Evening Internet program facility must be available
7. Currently no such program/factors are available in our college to enhance motivation & job satisfaction except that job nature is regular. No research work & projects are running but we are hopeful that these activities may be started at the arrival of our staff members from abroad having Doctorial Degrees in various disciplines.
8. Although Job nature is permanent. No research activity/projects in the University Environment as compared to other stable departments. I hope that our higher authority will take keen interest to initiate & promote research/teaching activity in the campus.
9. Programs/facilities are hardly satisfactory. I face great problem particularly in the arrangement of laboratory materials like rats, rabbits, frogs, guinea pigs etc. Each time I am in great tension for the arrangement of such disposable (slaughter) & other materials.

**Q.15 Suggest program/factors that could improve your motivation and job satisfaction?**

1. (i) Up-gradation of college to Faculty level.  
(ii) Vaccine plant installation.
2. Pay should be attached with price hight and inflation. Teachers must be given priority over students in such a manner that academic activity may excel .The

College should be upgraded to Faculty level and establishment of Commercial dairy farm in Gomal University.

3. (i) Availability of Farm Facilities (dairy farm).  
(ii) Availability of teaching staff.  
(iii) Political activities must be banned.  
(iv) Highly Qualified staff must be recruited for the faculty development.
4. Teacher's Training programs, Seminars/Symposia/Workshops, Refresher Courses, Salary should be attached with price inflation. Promotions must be based on Merit, teaching experience as well as research skills, Research Publications, Positive feedback from all concerned. Curricular as well as Co-Curricular activities must be held on regular basis.
5. Availability of multimedia to each class & lab. Refresher courses for teaching staff. Sound system in each class & lab.
6. Availability of Farms Facilities (Large & Small animals).  
(i) Skilled full persons for Laboratories.
7. Availability of Farms Facilities.  
(i) Facilities of Equipped laboratories.  
(ii) Availability of technicians with lower staff availability.
8. (i) Improve Ranking system.  
(ii) Provide Facilities to Improve qualifications.
9. Projects should be launched to improve the quality of college. More faculty members should be recruited as we have acute shortage of faculty. Facilitate the current staff as no facilities in teacher hostels are available. Political activities should be banned.
10. (i) All political activities strictly banned in the campus.  
(iii) Training, Seminars, Workshops, should be arranged for Faculty members.  
(iv) Faculty members should be strongly support to launch research projects.  
(vi) M.Phil & Ph.D approved programs immediately start for faculty members in respective disciplines.
11. (i) Latest facilities of equipments & other laboratory requirement are provided.

- (ii) Training in the well known national but preferably in the foreign institutions is provided.
  - (iii) Reasonable funding/budget allocation be ensured if we have to improve research and put it into a new pace.
- 12.** At least 5-6 month period should be permitted for the completion of courses, few courses are too lengthy by time allowed is too brief. This causes us great mental tension. Either courses should be shortened or proper time be allowed.

## **Criterion 07: Institutional Facilities**

**Standard 7-1: The institution must have the infrastructure to support new trends in learning such as e-learning**

The e-learning facilities are not sufficient to fulfill the requirements to meet the new challenges. Computer Lab is available with limited number of computers which is not sufficient for DVM program enrolled 450 students simultaneously. Improvement needs for this section.

**Standard 7-2 : The library must possess an up to date technical collection relevant to the program and must be adequately staffed with professional personnel**

The departmental library has the collection of latest books. The total numbers of books in the library are

<b>Name of Item</b>	<b>Quantity</b>
Books	4874

### **Central Library:**

The central library has also the facility to facilitate the chemistry department graduate students but with small number of books. No e-learning facility. Improvement needs in this section.

**Standard 7-3: Class-rooms must be adequately equipped and offices must be adequate to enable faculty to carry out their responsibilities**

Class room shortcomings

- 1. Multimedia:** No multimedia present in the classrooms.
- 2. Sound System:** No sound system present.
- 3. Desks / Chairs:** Desks and chairs are present but their conditions are not good.
- 4. Light System:** Light system is present but not up to the requirements.

No multimedia concept here. All the lectures are delivered via white board.

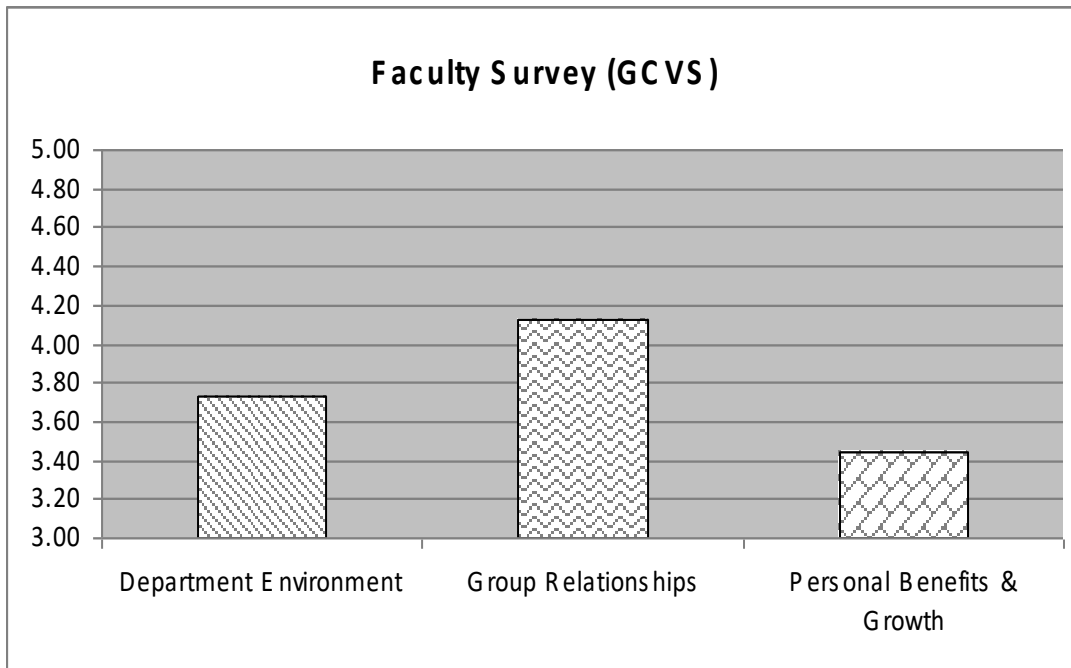
## **Criterion 08: Institutional Support**

**Standard 8-1: There must be sufficient support and financial resources to attract and retain high quality faculty and provide the means for them to maintain competence as teacher and scholar.**

All the financial matters of GCVS (Graduate College of Veterinary Sciences) run by University Finance Directorate and very little is left at department level. The university provides all the financial support needed to run the programs of studies in the College of Veterinary Sciences. Salaries of the faculty as well as supporting staff are facilitated by the university. The compensation including benefits like housing and children are also provided by the administration.

The University has the department of Staff Welfare which is run by the SWO (Staff Welfare Officer).

For this purpose we have conducted the survey



**Graph: 1**

**Standard 8-2: There must be an adequate number of high quality graduate students, research assistants and PhD students.**

Currently No M. Phil and Ph.D. program has been started yet. Program is planned for coming session.

**Standard 8-3: Financial resources must be provided to acquire and maintain library holding, laboratories and computer facilities**

At the moment the departmental library has almost 4874 volume of books, out of these most are latest in different fields.

The department has established a computer lab which has the facility of internet and digital library.

The department is well equipped with request to latest instant and the student has the facility to perform the experiments.