Clinical Skill Learning and Objective Assessment in Veterinary Education

A Global Perspective from Long-Term Practice

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University of Veterinary and Animal Sci

FVS

Business School

FBS

FAPT

FF&W

Established: 1882 as a Veterinary School

upgraded to University status in 2002.

National Ranking: Among top 10 universities in Pakistan (HEC); ranked #9 in THE Pakistan listing (2024)

International Ranking:
- Times Higher Education (THE) World University Rankings 2024: 801–1000 band globally-QS World University

Rankings by Subject (Veterinary Science 2025): 51–100 band globally.

Departments

Institutes

Constituent colleges

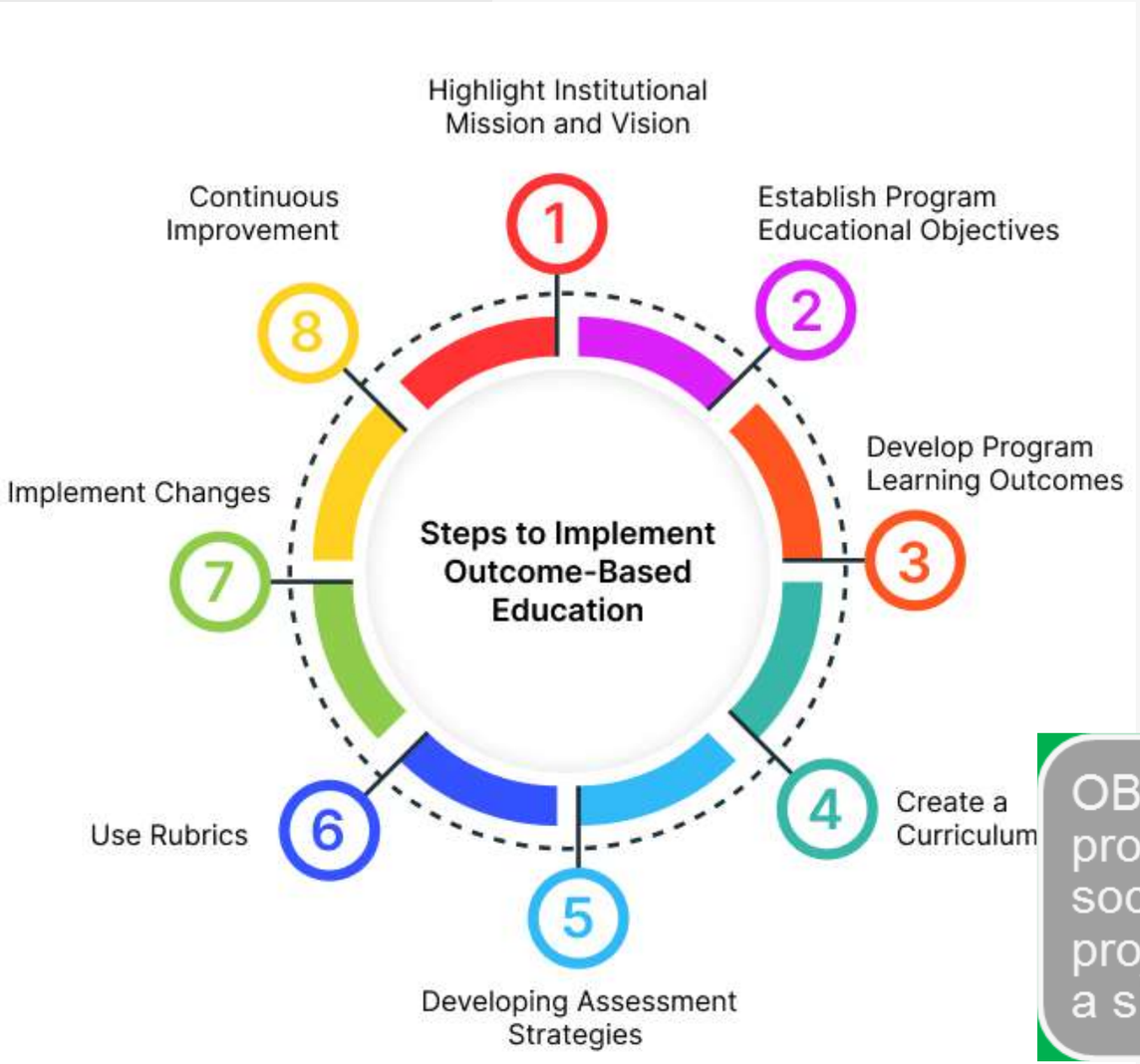
ASSESSMENT STRATEGIES

Problem-Based Learning (PBL) uses clinical cases to stimulate inquiry, critical thinking and knowledge application and integration related to biological, behavioral and social sciences.

Case based learning, or CBL, is very similar to PBL, but focuses on specific patient cases to identify learning objectives

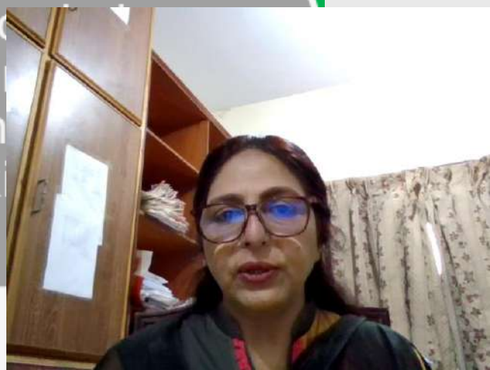
Outcome-Based Education (OBE) is an integrated approach that provides a reforming method for managing veterinary education to provide proficient learning

Outcome Based Education (OBE)-The future is today



Structured learning experience: OBE aims to provide a more structured learning experience by clearly defining what students should demonstrate.
Learner-centered: OBE fosters a learner-centered environment where teachers design assessments and curricula to align with specific outcomes.
Accountability: OBE enhances accountability for both teachers and learners.
Feedback mechanism: OBE views assessment as a feedback mechanism.

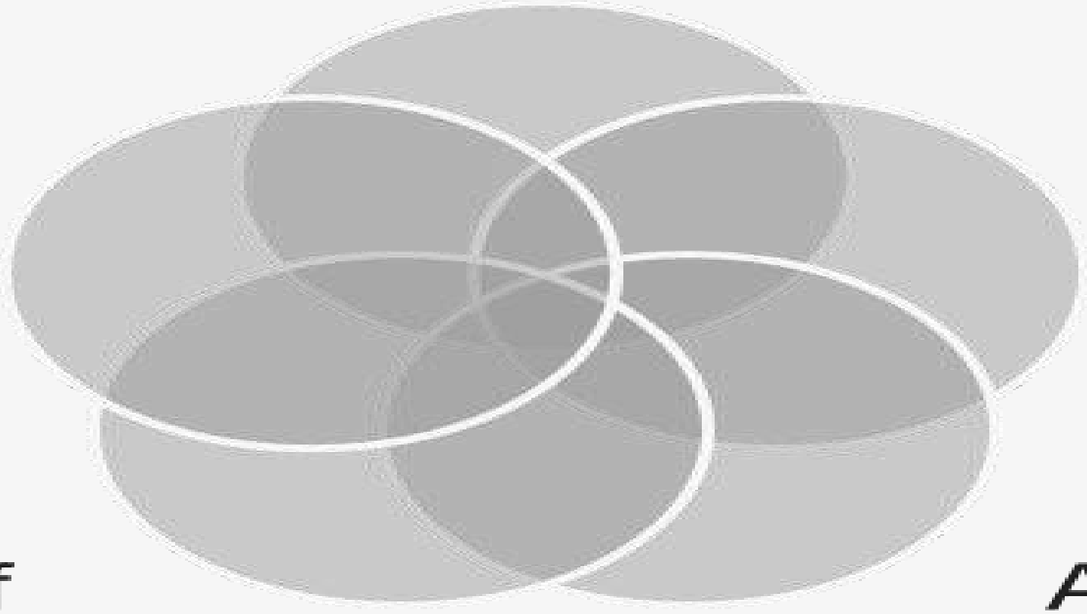
OBE develops a learner's Fundamental kn
problem-solving skills, research skills, tech
social skills, ethical values, communication
project management skills, and life-long ski
a significant impact on one's career.



4 Major Challenges of OBE

Analyzing Student Database.

Planning Curriculum.



Managing Records of Students.

Analyzing Asses Pat

Innovative assessment methods & tools

Gamification

Kahoot!, Quizlet, Duolingo, etc.

Digital

Assistments, Pear Deck, Poll everywhere, Quizlet etc.

Project-based

Flip, Rubrics, Seesaw etc.

Peer-reviewed

TEAMMATES, WebPA, Rubrics.

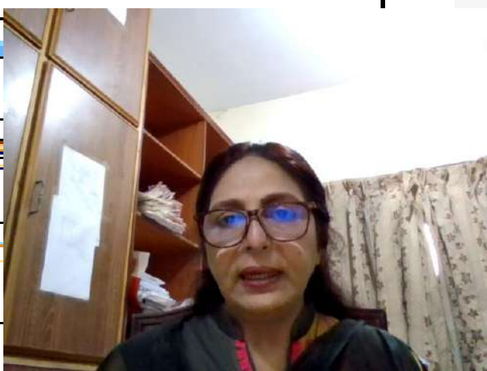
Adaptive

Socrative, Test assembly, Googleforms

Reflective

CYPHER, Men

S. No		PLOs(DVM)
1	PLO 1	Veterinary knowledge
2	PLO 2	Problem analysis
3	PLO 3	Designs/Development of solutions
4	PLO 4	Investigation
5	PLO 5	Modern tools usage
6	PLO 6	Veterinary and Society
7	PLO 7	Environment and Sustainability
8	PLO 8	Ethics
9	PLO 9	Individual and team work
10	PLO 10	Communica
11	PLO 11	Project Manag
12	PLO 12	Life long and life w



Blooms taxonomy domains

ACTIVITY

RUBRICS SAMPLE (PRE-ONLINE)

LABORATORY:	Environmental Engineering Lab												
RUBRICS FOR PRACTICAL CLASS EVALUATION													
SUBJECT:													
Note: 0 means absent, 1 means poor, 2 means satisfactory, 3 means good, 4 means very good, 5 means extraordinary													
EXPERIMENT NUMBER AND TITLE:													
EVALUATOR'S NAME:													
Sr. No.	Section	Group	Criteria / Regd. No.	COGNITIVE (10%)			PSYCHOMOTOR (70%)			AFFECTIVE (20%)		Total
				Background Knowledge	Data Analysis & report/Manual writing	Viva/Quiz/ Presentation	Safety Precautions	Operation of Equipment	Observing & Data Recording	Attitude/ Ethics During Experiment	Teamwork	
				Scale 0-5	Scale 0-5	Scale 0-5	Scale 0-5	Scale 0-5	Scale 0-5	Scale 0-5	Scale 0-5	
1		G-1										
2												
3												
4												
5		G-2										
6												
7												
8												
9		G-3										
10												
11												
12												
13		G-4										
14												
15												
16												
17		G-5										
18												
19												
20												

Competency-Based Veterinary Education & Entrustable Professional Activities

Inputs → output and outcome

Identifying the required competences

Entrustable professional activities or EPAs

Skills, knowledge, and attributes (SKAs)

Novice to advanced beginner to competent or even proficient, expert

The Objective Structured Clinical Examination (OSCE)

Introduced **~50 years ago** (Harden et al., 1975) – **standardized, objective, reliable** clinical assessment

Widely used globally

Structure: circuit of **10–15 stations**

Students **rotate sequentially**, performing varied clinical tasks

Time per station:5–6 min – basic skills (e.g. suturing on skin pad) and **Up to 20 min** – complex tasks (history, exam, diagnosis, treatment plan

The OSCE is now widely adopted

animal handling and basic clinical skills

- bandaging a foot,
- surgical preparation,
- suturing,
- placement of an intravenous catheter,
- preparing a blood smear,
- a partial or complete physical examination,
- communication skills.
- **station set-up varies and can include**
- live animals, models,
- laboratory equipment,
- and simulated clients.
- **The selection of stations should be representative of, and mapped (bluepr the taught content and course learning objectives.**

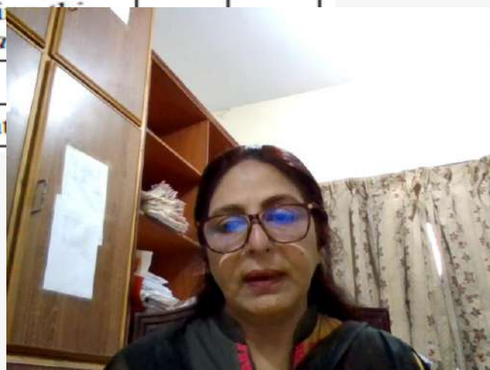
Teaching & Assessment Interventions

- OSCEs introduced as a core assessment tool
- Integrated with simulation-based teaching
- Field case rotations and real-time formative feedback
- Goal: Ensure standardized and reproducible skill evaluation

Checklist & Global Rating Scales

- Hand washing
- A veterinary example of a global rating scale for skin suturing canbe found in Read et al. (2015). Read, E.K., Bell, C., Rhind, S. and Hecker, K.G. (2015). The Use of Global Rating Scales for OSCEs in Veterinary Medicine. PLoS ONE, 10(3), e0121000.

Clinical Skill:	**Handwashing using World Health Organisation (WHO) technique**		
Assessor Name:			
Candidate ID:		**Date:**	
CHECKLIST			
Step	**Step description**	**Yes ✔**	**No x**
1	Wets hands all over with water *(not applicable (NA) if using handrub)*		
2	Applies sufficient soap or handrub to cover all hand surfaces		
ALL the following steps **must be completed** *(although the order is not important)*		-	-
3	Rubs hands together, palm to palm		
4	Rubs right palm over **left** hand dorsum with interlaced fingers		
5	Rubs left palm over **right** hand dorsum with interlaced fingers		
6	Rubs hands palm to palm with fingers interlaced		
7	Rubs back of fingers to opposing palm with fingers interlocked		
8	Rotational rubbing of **left** thumb clasped in right palm		
9	Rotational rubbing of **right** thumb clasped in left palm		
10	Rotational rubbing with clasped fingers of right hand in middle of **left** palm		
11	Rotational rubbing with clasped fingers of left hand in middle of **right** palm		
12	Rinses hands thoroughly under water *(not applicable if using handrub)*		
13	Dries hands thoroughly with single use towel **OR** *(if using handrub)* Allows hands to dry		
14	Uses towel or elbows to turn off the tap/s, discards towel in a bin; duri process does not touch any dirty surfaces with clean hands *(N/A for ha*		
15	Whole procedure lasts ≥ 30 seconds		
	Total score *(sum of 'Yes' column):* **Handrub / 12** **Wa**		



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Clinical Skills OSCE

Station Number:

Skin Suturing

The candidate should do the following (insert more lines if needed):	YES	NO
1. Selects an instrument tray and proceeds to unwrap it using proper aseptic technique (including holds on flat hand turned palm up or places on counter top, opens tabs in turn being careful not to touch the inner lining of the wrapper or the tray of instruments with their bare hands, opens the far tabs first to avoid leaning across the sterile field).	O	O
2. Selects appropriate sized surgical gloves.	O	O
3. Applies the gloves in an aseptic manner using open gloving technique and taking care not to break sterility.	O	O
4. Selects a pair of needle drivers to suture with (not any other instrument).	O	O
5. Selects a pair of sharp-blunt scissors to cut suture material with (not tissue scissors).	O	O
6. Selects a pair of rat-toothed thumb forceps to hold skin and to receive suture needle from needle drivers (does not use Russian forceps or fingers).	O	O
7. Selects the 0-Prolene suture material to suture the skin with and asks the examiner to open it using proper aseptic technique.	O	O
8. Uses rat-toothed thumb forceps for retracting the skin and receiving the needle when suturing. Holds the forceps in a pencil grip (does not palm grip).	O	O
9. Holds the needle drivers using appropriate tripod grip.	O	O
10. Ties a surgeon's knot at the start of the incision (not past the end of the incision so that they leave a gap at the start of the incision) (must be a surgeon's knot – they are starting a tension suture pattern).	O	O
11. Correctly places Suture #1 - Correctly ties interrupted vertical mattress suture in the wound.	O	O
12. Correctly places Suture #2 - Correctly ties interrupted vertical mattress suture in the wound.	O	O

Global Rating Scale Assessment Tool

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Skin Suturing (Equine)

Please circle the numbers below that best describe the candidate's actions. Choose only one per dimension.

	Clearly below expectations		Acceptable performance		Performs above expectations
Safety	1 Fails to respect safety aspects - places self, assistant, or horse in repeated circumstances of compromised safety.	2	3 Occasionally tentative in approach to horse or advice to handler and may result in a position of compromised safety.	4	5 Always conscious of safety and demonstrates confidence. Never places self, assistant or horse in a position of compromised safety.
Organisation and selection of materials	1 Fails to select correct materials and/or instruments for task. Does not organize appropriately prior to starting task.	2	3 Slowly selects appropriate ıaterials. Organizes them but not ı a manner that necessarily helps ıprove efficiency with performing ısk or has some materials but not organized before performance of the task begins.	4	5 Quickly and confidently selects correct materials and instruments for task. Organizes in a deliberate manner that facilitates task. Materials are ready before performance of the task begins.
Appropriate aseptic technique	1 Demonstrates deficient knowledge or execution of aseptic technique without recognising and correcting it.	2	3 Competent performance that indicates working knowledge of aseptic technique but committed some minor errors that were recognised and corrected.	4	5 Superior attention to aseptic technique. Demonstrates good understanding of sterile versus clean technique. No mistakes made.
Correct use of instruments	1 Student may use an instrument incorrectly and may or may not correct mistake but is still able to get the job done.	2	3 Student uses instrumentation correctly for most part. Occasional errors are made but awareness and correction is demonstrated.	4	5 Student holds and uses instruments correctly throughout using proficient and smooth technique. No errors in use or handling occur.
Correct suture pattern and technique	1 Student uses inappropriate pattern, bite sizes or spacing.	2	3 Student uses appropriate pattern, bite sizes and spacing for the majority of the task but not all.	4	Stuc sut patter in
Appropriate disposal of equipment	1 Improper disposal or failure to dispose of materials.	2	3 Delayed or partial disposal of materials.	4	Prom

Skills Assessed

Practical animal handling;

Clinical, technical,

Diagnostic

surgical skills;

communication skills

Considerations

- Good planning and a structured approach
- Cost and Time
- Team and Training
- Marking Criteria
- Assessment as feedback

Clinical Skills Curriculum-Example Increasing the complexity and integration of skills.

Initial: gowning, gloving, patient prep, skin suturing

Mid: combine skills – intestinal resection & anastomosis (simulation)

Final: live surgery – exploratory laparotomy, cystotomy (integrated skills)

Reliability: The more reliable is a test, the more consistent will be the scores of a student or a group of

Reliability = first step in exam analysis

Requires **10–12 stations**

Trained assessors & standardized clients

Clear, case-specific checklists

Reliability decreased if:

- Assessors untrained
- Tasks too easy/hard
- Clients inconsistent
- Checklists vague

Key Points:

High reliability, objective and fair

• Drives student learning and skill developme nt

• Resource intensive to establish, set up and run

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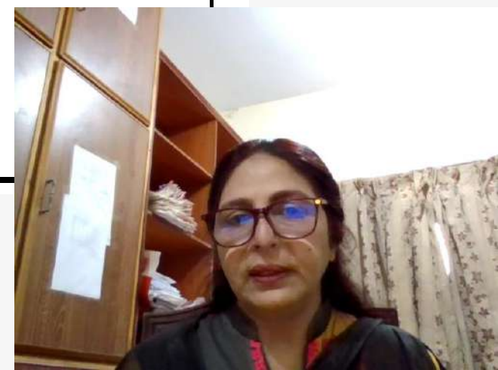
Validity - Validity addresses the question of whether a test measures what it is supposed to measure.

Over the years there have been different proposed approaches to gathering validity evidence

Inference	Examples of Evidence that could be gathered
Scoring	Scoring rubrics, training of question writers, item response analysis
Generalisation	Test blueprint, reliability data
Extrapolation	Relevance to outcomes, authenticity of the scenarios
Implications	Standard setting, remediation, feedback to students, feedforward to future assessment design



Case	Number ofchecklist Items	Reliability(coefficient α)
OSCE exam 1		
Pre-anesthetic	27	0.716
Surgical skin incision	14	0.359
Muzzling a dog	22	0.421
Sheep restraint	20	0.678
Coggins Form	16	0.706
Restraining a horse	26	0.143

examiner identified a fatal flaw

OSCE exam 2			
Mouse handling	21	3	452
Ultrasound	15	0	00
Vaginal cytology	7	0	538
Blood smear	9	0	159
Equine bandaging	26	1	536
Hoof testers	27	0	635
Musculoskeletal examination	21	0	700
IV injection	19	0	277
Gowning and glove	37	6	766
Glove and suture	28	9	391

OSCE Exam 3			
Small-animal radiology	26	0	.703
Examination of liver	12	0	.214
Castration and ear tagging	14	0	.437
Intramuscular injection in a bird	18	9	.555
Bovine foot trimming	14	0	.599
Equine vulvar examination	16	6	.643
Bovine rectal examination	12	0	.300
Bovine physical examination	18	0	.546

Effect	OSCE 1 (six stations)				OSCE 2 (10 stations)				OSCE 3 (nine stations)		
	σ^{2a}	%	G coefficient[b]		σ^2	%	G coefficient		σ^2	%	G coefficient
Student	16.95	12.86	0.56		4.76	3.12	0.37		3.27	3.14	0.32
Station	36.44	27.64			36.23	23.78			19.63	18.85	
Rater within station	0.00	0.00			29.18	19.15			19.30	18.53	
Student by station	6.85	5.20			29.22	19.18			19.15	18.39	
Residual	71.59	54.30			52.96	34.76			42.81	41.10	

Note: OSCE=objective structured clinical exam.

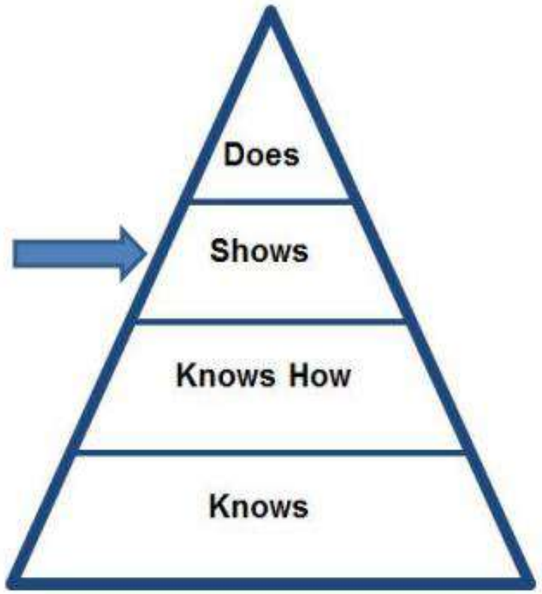
a | σ^2 indicates the variance components for each effect.

b | Generalizability coefficient calculation: $G_{student}=\sigma^2_{student}/(\sigma^2_{student}+[\sigma^2_{(student * station)}/station\#]+[\sigma^2_{residual}/s$

Objective Structured Clinical Examination (OSCE)

Levels Assessed: At the 'Shows' level of Miller's pyramid and skills in Bloom's psychomotor domain.

Miller's Pyramid 'Shows'



The 'Shows' level of Miller's pyramid can be considered as assessing practical ability and basic clinical skills, often on a model ('in vitro').

Graduate Competence – Ability to perform common surgical procedures.

Knowledge Stage – Basic theory (instruments, sutures); assessed at *Knows/How* via MCQs.

Skills Practice – Basic clinical skills (e.g., suturing on models); assessed in OSCE (*Shows*).

Workplace Learning Competence evaluated through WPBAs (*Does*).

Outcome – Trusted graduate-level surgical performance

Aligns with global best practices in clinical education

Significant improvement in skill performance post-OSCE

Gains in procedural accuracy and clinical reasoning

Enhanced skill acquisition and confidence

Consistent across small and large animal modules

Supports competency-based veterinary education model

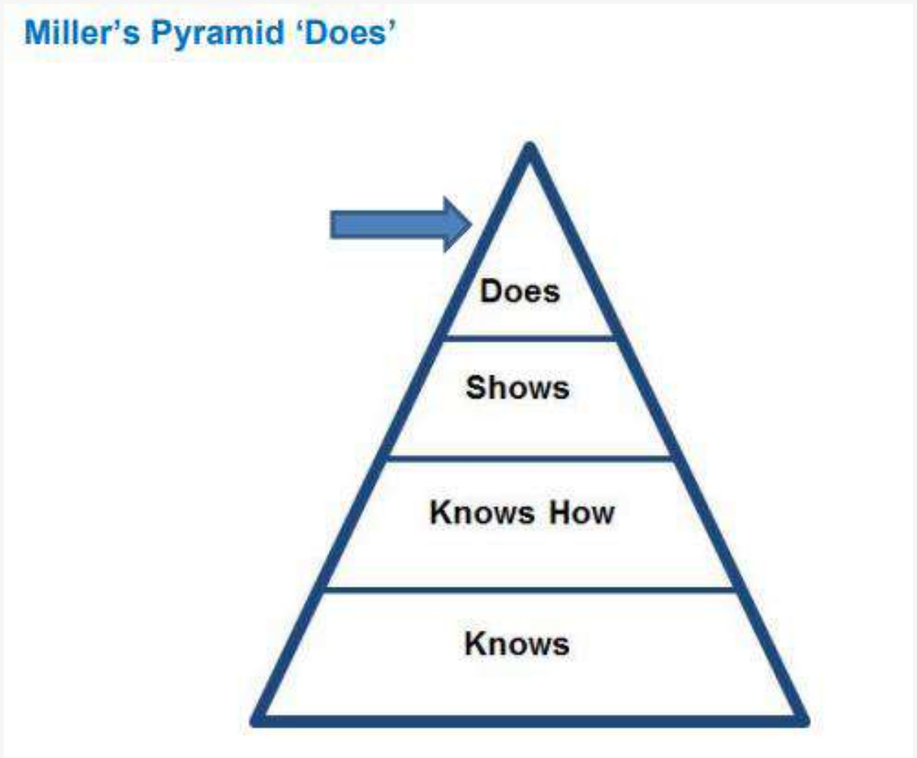
Conclusion

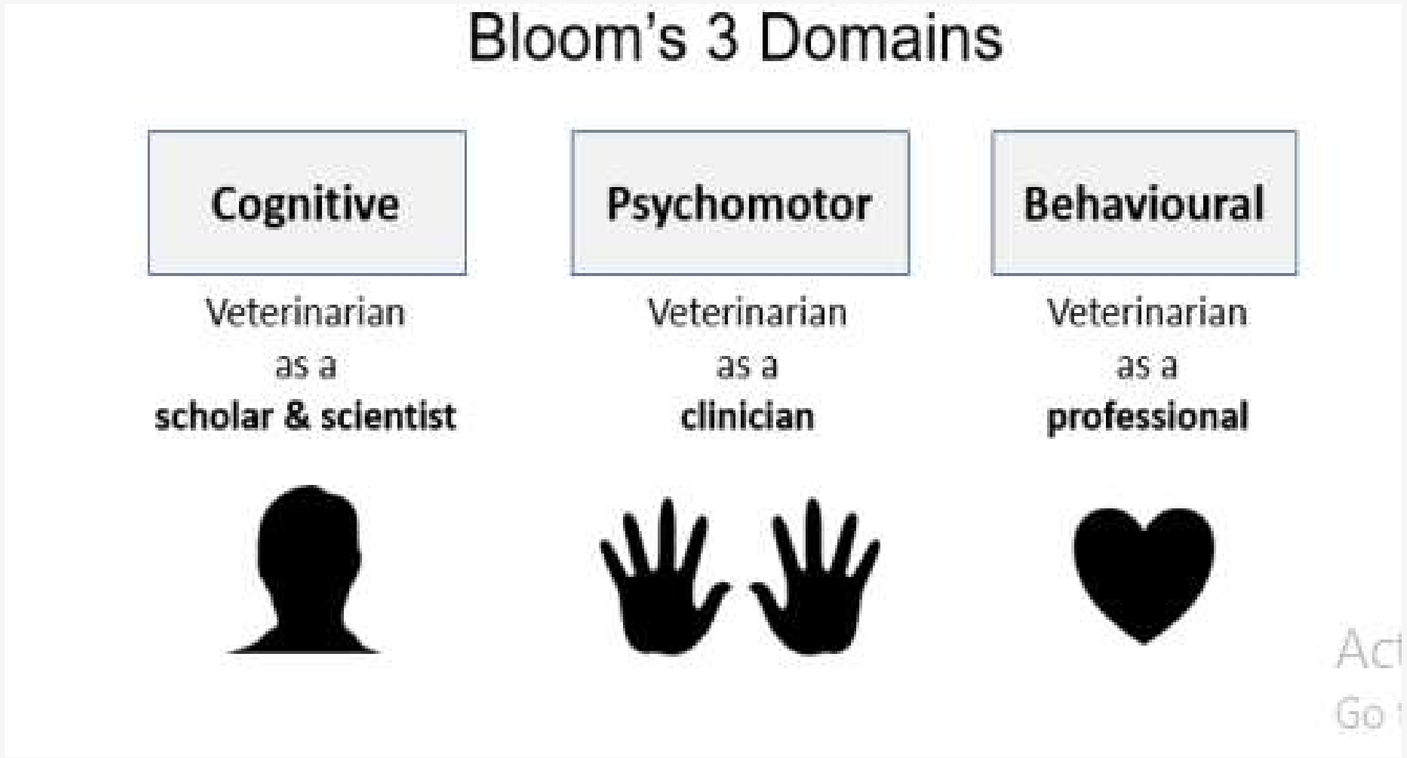
Structured assessments like OSCEs improve skill performance

Increase student confidence and graduate competence

Recommend OSCE-driven, simulation-based curricula to strengthen education

Workplace-based Assessments (WPBAs)





Performance 'in vivo' in the workplace, typically when the student is clinical rotations.

There are various types of assessment method used and these are broadly classified as Workplace-based Assessments (WPBAs)

Direct Observation of Procedural Skills (DOPS)

- Workplace-based assessment of practical/clinical skills
- Student observed and scored by assessor during routine clinical procedure
- Physical examination (complete/system-specific)
    - Examples in veterinary medicine:
    - Basic surgical techniques (e.g. lump removal, castration)
    - Anesthesia procedures
    - Diagnostic imaging and therapeutics
    - Laboratory techniques
- Assessor uses standard DOPS form for scoring
- Student initiates assessment after achieving required competence
- Used formative and summative
- Feedback is an integral component of DOPS

Key Points:

High educational impact

Used for assessment of a variety of essential practical, clinical procedures and skills/techniques

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Mini-Clinical Evaluation Exercise (mini-CEX)

Direct Observation – Student is observed by an assessor during a real clinical encounter in a routine work setting (e.g., consulting room or ambulatory practice).

Duration & Feedback – Observation lasts 15–20 minutes followed by immediate assessor feedback.

Standardized Assessment Form – Performance scored on a structured tick-box form recording case, setting, student, and examiner details.

Summative Contribution – Multiple mini-CEX assessments contribute to overall (summative) evaluation.

Portfolio Inclusion – Completed mini-CEX forms are added to the student's professional portfolio

Key Points:

- High authenticity and acceptability
- Particularly valuable for students when effectively combined with feedback
- Reli… increas… num… observat… CEXs) p…

University of BRISTOL

DOPS assessment form

Physical examination - small animal

Student Name:

Date:	Species:

Assessor to grade difficulty of this task:

☐ Normal

☐ More difficult (give reason)

FORMATIVE ASSESSMENT	Not assessed	Below expectations	Borderline	Meets expectations	Exceeds expectations
Understanding of procedure and specific considerations					
Appropriate preparation for procedure					
Cleanliness/asepsis as appropriate					
Seeks help if appropriate					
Technical skills e.g. completeness of physical examination, techniques used during examination					
Communication skills e.g. communication with owner, ability to communicate findings to assessor					
Consideration for patient					
Situation awareness					
Post-procedure management					

To commend:

To consider:

Multi-Source Feedback, 360-degree evaluation

Assessment Type – Multi-source (360°) feedback.

Information Source – Feedback from multiple colleagues and team members.

Tool Used – Structured form or questionnaire.

Observation Basis – Performance observed over time and across multiple cases

Skills Assessed – Communication, teamwork, professionalism.

Assessment Duration – 5–10 minutes per assessor.

Reliability Factors – Multiple raters (8–12) from diverse team levels.

Feedback Utilization – Effective use of received feedback is essential.

Key Feature – Feedback from multiple clinical stakeholders.

Outcome – Insights into professional behavior

Case-Based Discussion

Assessment Type – Case-Based Discussion (CbD).

Format – Student–assessor discussion on a managed case (no direct observation).

Purpose – Formative assessment (for learning).

Case Reference – Discussion based on case record.

Focus Areas – Understanding, clinical reasoning, decision-making.

Scenario Exploration – Responses to case variations or developments.

Related Method – Similar to Chart Stimulated Recall

- **Mostly used formatively for learning**
- **Assessor training is important to optimize reliability and the benefits fo learning**

Student Reflection

Reflective Learning Evidence – Student's reflection is a key portfolio component.

Superficial Reflection Risk – Summative assessment may lead to superficial, expected responses.

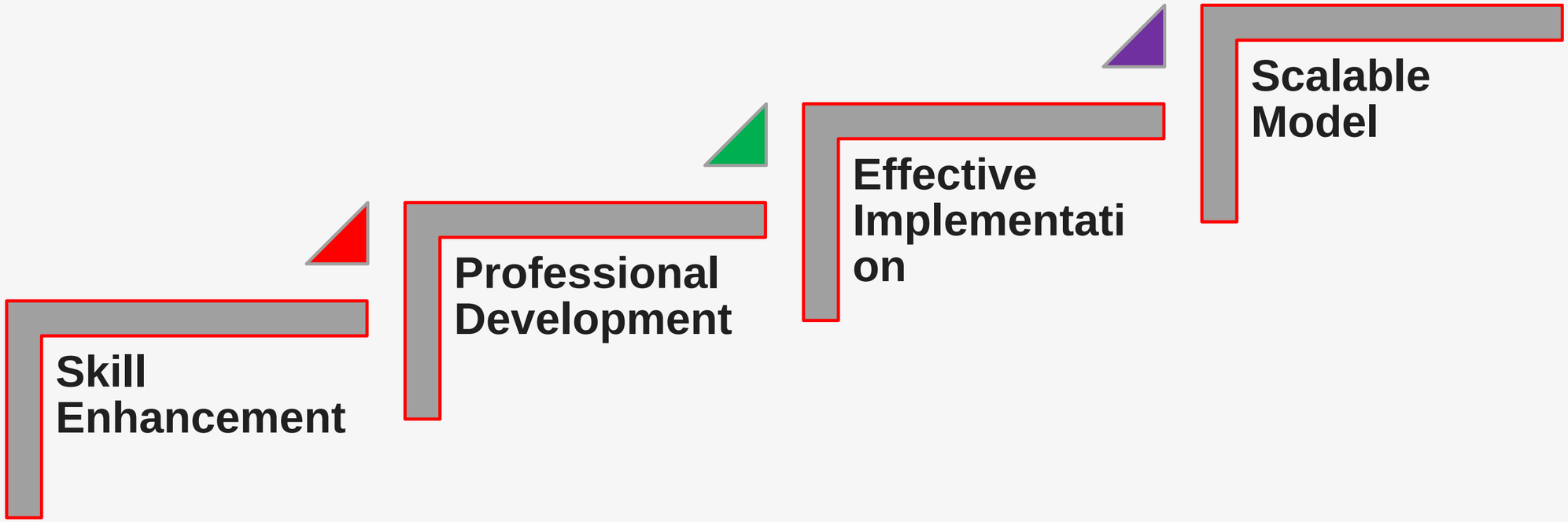
Value of Reflective Writing – **Writing enhances** clarity and self-awareness.

Student Perception – Some view reflective writing as burdensome.

Mentor Discussion – Guidance from a mentor enhances meaningful reflection.

Skills Assessed – Knowledge, application, interpretation, case recording, a
professionalism.

CLINICAL SKILL ASSESSMENT AT UVAS(DOPS IMPLEMENTATION)



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DOPS METHODOLOGY FOR IMPLEMENTATION OF ANIMAL HEALTH MONITORING FRAMEWORK

Study Design – Longitudinal observational (6-month assessment).

Framework Origin – AHMF developed by Brooke (Bishop, 2017).

Welfare Advocacy – Animal handling and welfare ethics.

Communication – Client interaction and case documentation.

Clinical Expertise – Diagnosis, treatment, medicine administration.

Kit Maintenance – Medical supplies and sterile practices.

Clinical Governance – Record keeping, hygiene, accountability.

Study Sites – 3 veterinary institutes and 3 hospitals in Lahore region.

Target Participants – Veterinarians, students, para-veterinarians.

Sample Size – 100 participants.

Sampling Method – Convenience sampling.

Participant Groups – 37 students, 54 veterinarians, 9 para-veterinarians.

Inclusion Criteria – Active practitioners with informed consent.

Ethical Approval – UVAS IRB approval (DR/295); voluntar participation and withdrawal rights.

Welfare Advocate(AHMF as DOPS Assessment

1. Appropriate Handling

Score 0
No halter/poor fit/bit not checked

Score 1
Proper halter fitted, bit checked

2. Appropriate Restraint

Score 0
Incorrect/twitching first/ignores behavior

Score 1
Minimal restraint, sedation if needed, recognizes behaviours

3. Animal's Basic Needs

Score 0
No water/shade/unsafe environment

Score 1
Water offered, shade provided, environment safe

4. Recognition of Pain

Score 0
Pain not recognized or triaged

Score 1
Pain recognised, urgent cases prioritised

Communication

5. History Taking

Score 0
No history or missing info

Score 1
Basic history with signs, duration, treatment

6. Follow-up Planned

Score 0
No explanation/follow-up/prognosis

Score 1
Explains plan, prognosis, agrees follow-up

7. Future Prevention

Score 0
No prevention advice

Score 1
Gives prevention & management advice

8. Basic Clinical Exam

Score 0
Vitals not taken or observed

Score 1
All vitals done: distance, pulse, RR, MM, ter

Clinical Expert

9. Affected Area Examined

Score 0
Not all affected systems examined

Score 1
All affected systems examined

10. Diagnosis and Treatment

Score 0
Wrong interpretation/treatment/pain relief

Score 1
Correct diagnosis, rational treatment, pain relief given

11. Medicine Dosing

Score 0
Wrong dose/route/technique

Score 1
Correct dose, route and technique

Clinical Governance

12. Kit Contents

Score 0
Essential drugs/equipment missing

Score 1
All essential medicines and items present

13. Medicine Storage

Score 0
Expired/unlabeled/improper storage

Score 1
In date, labelled, stored properly

14. Equipment & Disposables

Score 0
Missing/broken items

Score 1
All items present and functional

Cleanliness & Sterility

Score 0
Dirty, no handwash, non-sterile

Score 1
Clean, sterile, hand washed

Waste & Sharps

Score 0
Sharps not disposed safely

Score 1
Sharps disposed appropriately

Clinical Records

Score 0
No records available

Score 1
Records kept and available

Scoring: Summary-outcomes
Performance parameters were evaluated in each lecture, and progressive improvements in practices were systematically measured

Intervention and mentoring process

The intervention consisted of evaluating the effectiveness of AHMF by training and assessing the participants.

Initially, a 5-day training module was organized at the respective study stations by the master trainer, trained by Brooke, designed to familiarize all the participants with the framework.

It was followed by regular mentoring and evaluation sessions every month throughout the study period, comprising of total six assessments.

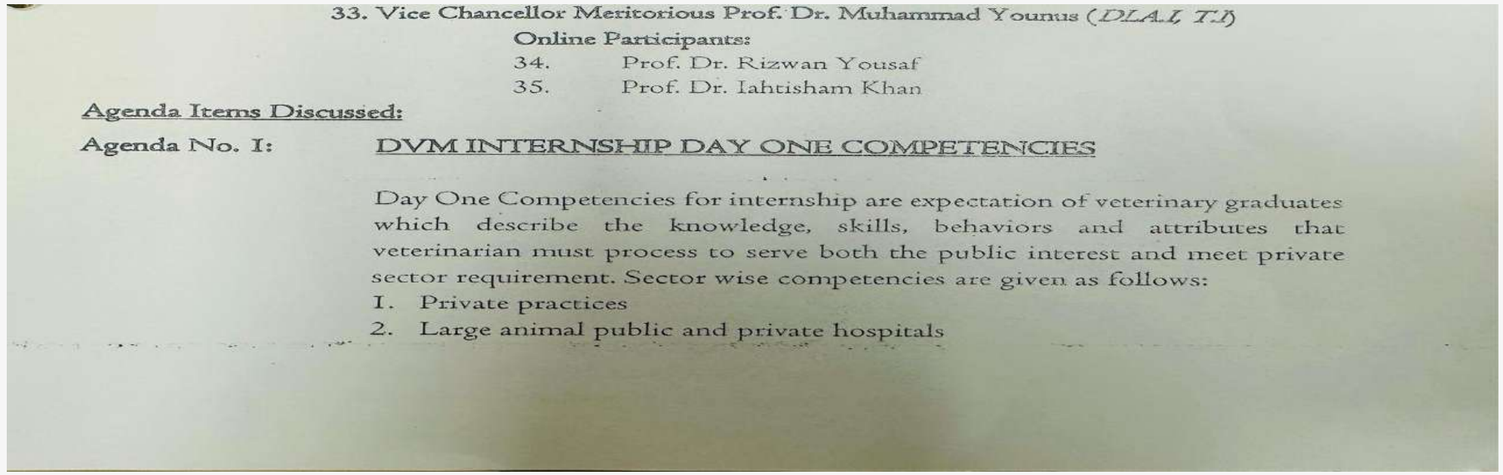
Participants were assessed, AHMF scores were given at the end of each month by the master trainers, and follow-up mentorship was provided.

The master trainers were blinded to the stage of the assessment and assigned to different study sites in a randomized sequence to prevent bias in evaluation.

Data Collection

Day One Competencies of Graduates

- Day one Competencies for internship are expectations of veterinary graduates during their degree program which describe the knowledge, skills, behaviors, and attributes that veterinarians must possess to serve both the public interest and meet private sector requirements.
- Approved in faculty board of studies on 30-08-2024.



33. Vice Chancellor Meritorious Prof. Dr. Muhammad Younus (DLAL T.I)

Online Participants:

34. Prof. Dr. Rizwan Yousaf
35. Prof. Dr. Iahtisham Khan

Agenda Items Discussed:

Agenda No. I: DVM INTERNSHIP DAY ONE COMPETENCIES

Day One Competencies for internship are expectation of veterinary graduates which describe the knowledge, skills, behaviors and attributes that veterinarian must process to serve both the public interest and meet private sector requirement. Sector wise competencies are given as follows:

1. Private practices
2. Large animal public and private hospitals

Plan for Modules:

- 1. Anesthesia
- 2. Surgery (Patient Prep, Surgeon Prep, Surgery)
- 3. Small Animal Medicine
- 4. Necropsy
- 5. Radiology
- 6. Food animal
- 7. Equine Basic module

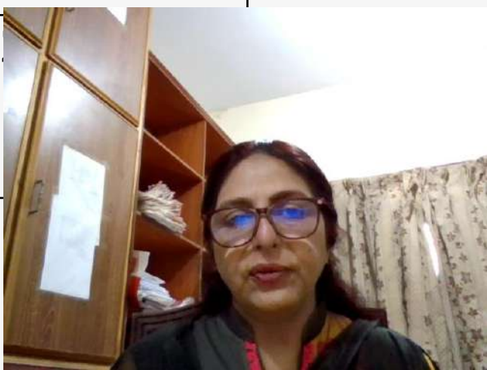
Plan:

The modules will be carried out as per plan (details below). Each day all students will be given hands on training for each module (Anesthesia, Surgery, Small Animal Medicine and Necropsy). Pre-readings were provided to all of the students for preparations and then demonstration given followed by the module execution (practical activity) .

Conceptualization—Visualization—Verbalization(Trainer)---Verbalization (Learner)—Demonstration(learner).

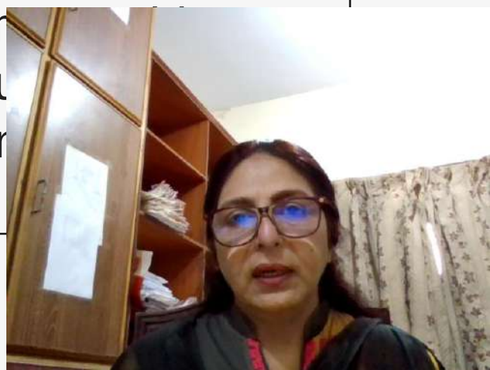
Necropsy Module

Sr.No.	Topic	Presenter	Date	Time
1	Introduction to Necropsy	Prof.Dr.Yasin Tipu	20-09-2025	9-10 am
2	Step by step demonstration of necropsy technique	Dr.Ghulam Mustafa	20-09-2025	10-11 am
3	Anatomy Review	Dr.Saeed Imran	20-09-2025	11 am-12pm
4	Indentifying gross lesions	Prf.Dr.Raheela Akhtar	20-09-2025	12-01 pm
5	Differentiating Pathological changes from postmortem chnages	Prof. Dr.Muti Ur Rehman Khan	20-09-2025	1-2 pm
6	Sample collection	Dr.Gulbeena Saleem	20-09-2025	2-3 pm
7	Necropsy report writing	Dr.Qamar Un Nisa	20-09-2025	3-4 pm
8	Hands on prcatice	Dr.Suleman Dr.Ghulam Mustafa Dr.Adeem Rehman Raffie	21-09-2025	9 am-12 pm
9	Final Evaluation	Dr. Suleman Dr. Ghulam Mustafa Dr. Adeem Rehman Raffie	21-09-2025	1-



Radiology Module

Day	Time (Range)	Focus Areas	Key Activities
Day 1	8:00 AM – 1:15 PM	**Radiographic Basics**	Introduction, principles of radiography, equipment handling, patient prep & positioning, common diagnostic views, image acquisition & quality assessment.
Day 2	8:00 AM – 1:30 PM	**Machine Operation & Safety**	X-ray machine settings (kVp, mA, time), technique chart, setting parameters, radiation safety, taking initial exposures, image quality evaluation & selection.
Day 3	8:00 AM – 12:00 PM	**Application & Assessment**	Case-based troubleshooting, practical exa setup, exposu evaluation, a best image.



Food Animal Practice Module

Day	Focus Areas	Resource Persons	Venue
Day 1	Introductory session, history taking, restraining & casting, general & clinical exam, body condition scoring & differential diagnosis	Dr. M. Avais, Dr. J.A. Khan, Dr. M. Hassan Saleem	Dept. of Vet. Medicine
Day 2	Sampling (blood, urine, fecal), drug administration, hematobiochemical test interpretation, stomach tube passing	Dr. M. Ijaz, Dr. M. Hassan Saleem, Dr. Zahid Iqbal	Dept. of Vet. Medicine
Day 3	Udder prep, milk sampling & CMT, vaccination & herd health, rumen fluid collection, anesthesia & speculum use	Dr. M. Avais, Dr. Arslan Ahmad, Dr. Kashif Maan	Vet. Medicine / Surgery
Day 4	Nerve blocks, epidural anesthesia, lameness evaluation	Dr. Kashif Maan, Dr. Zahid Iqbal	Vet. Surgery / Medicine
Day 5	Reproductive exam: rectal palpation, pregnancy diagnosis, estrus detection, AI & herd reproductive management	Dr. Aijaz Ali Channa	Dep The

Equine Module

Day	Focus Areas	Key Activities
Day 1	Basic Clinical Skills	Introduction, thoracic auscultation, injection techniques (IM, IV, SQ), dental age estimation & floating, bandaging, ophthalmic exam
Day 2	Diagnostic Procedures	Review, abdominocentesis, horse ID & blood sampling, fecal sampling, practical assessment, rectal exam
Day 3	Initial Patient Evaluation	Catching & restraining, client history taking, distance exam, full physical exam (TPR)
Day 4	Diagnostic Approach	Problem list development, differential diagnoses, requesting diagnostic tests, interpreting results
Day 5	Anatomy & Identification	Horse anatomical site overview, forelimb & hindlimb anatomy, p identification)
Day 6	Lameness Examination	History & gait observation, limb localization, detailed limb exam, blocks, imaging & prognosis

Small Animal Medicine, Anesthesia, Surgery

Module	Days	Key Activities
Small Animal Medicine	Days 1–5	- Clinical procedures & case discussions - Hands-on practice at different stations - Q/A sessions
	Days 6–7	Weekly Off
Anesthesia	Day 8	Introductory lecture (Groups A & B)
	Days 9–12, 15	- Hands-on anesthesia practicals - Training in induction, monitoring, protocols
Surgery (Spaying Focus)	Day 8	Introductory lecture (Groups A & B)
	Days 9–12, 15	- Patient & surgeon preparation - S surgeries (demo & practice) - Integ Small Animal Medicine station

Target Career Paths-Internship Data
One Panel Policy

Private Pet Practices

Large Animal Public & Private Hospitals

Practices at Academic Stations

Dairy Industry

Dairy Farms

Fattening and Meat Industry

Poultry farms and Industry

Research, Extension, and NGOs

Marketing and Pharmaceuticals

Equines

Hands on Training clubbed modules

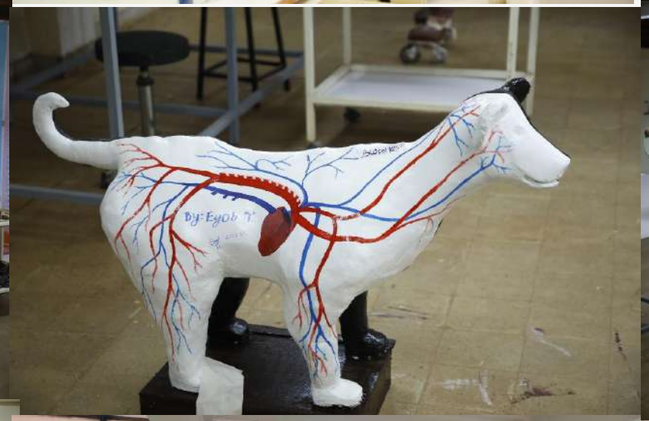





Training on Clinical Skill Lab at Brooke Hospital Ethiopia
12-19th October 2025









Country Program Priorities (Next 3-6 Months)

- Establish and equip the Clinical Skills Lab at UVAS.
- Conduct cascading training for faculty and staff on CSL methodology.
- Develop and display skill station SOPs and learning modules.
- Integrate animal welfare principles in all CSL activities.
- Initiate student engagement through CSL Talent Group.

UVAS PAKISTAN VISION AND MISSION

Vision

- The University aspires to be the nation’s leading Public Sector University with global recognition due to its quality in teaching and research, civic engagement and economic development.

Mission

- We develop human resource through professional education, research and training in the field of Life Sciences. The University promotes learning environment that cherishes gender and cultural equity, and supports pursuit of knowledge, academic freedom and intellectual curiosity. We aim at socio-economic growth of the Country by ensuring professional exc integrity and ethical conduct in our graduates with diverse and innc faculty.


Thank You!
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