

# DEPARTMENT OF ENVIRONMENTAL SCIENCES

University of Veterinary and Animal Sciences (UVAS) inaugurated the Centre for Environmental Science, Policy and Management (CESPAM) in 2010 in Faculty of Bio-Sciences and offered a four year UG program, BS (Hons.) Environmental Sciences. In 2013, the status of “Centre for Environmental Science, Policy and Management” was raised to ‘Department of Environmental Sciences’. Department is actively engaged in imparting education and hands on trainings in the field of environmental sciences. Department is presently offering following UG/PG Programs:

- BS (Hons.) Environmental Sciences (Morning Program)
- M.Phil Environmental Sciences (Morning & Evening Program)



**University of Veterinary & Animal Sciences, Outfall Road, Lahore**



## Analytical Facilities/services

The department has well established laboratories for undergraduate and postgraduate studies. Trainings on Biosafety and Instrumental Analysis to train Postgraduate students of different departments at UVAS, Lahore campus are conducted. Such trainings are scheduled to on regular basis.

## M<sub>2</sub> LAB

This department also owns a “state of the art” “**M<sub>2</sub> LAB**” for the minerals and metals analysis from **Food, Feed, Fertilizer, Water, Soil, Meat and Blood Samples** and facilitates the students of different departments of UVAS at cost charges basis as well as for commercial samples from industry on enlisted cost.

**We Use CRMs & STMs to build your confidence in Analysis.**

Particulars of test	Rate/sample (Student) (Rs.)	Rate/sample (Commercial) (Rs.)
pH, TSS/TDS/ Total Dissolved Solids of drinking/ irrigation/ waste water	20.00	50.00
Di calcium Phosphate (DCP)	200.00	500.00
BOD of waste water	100.00	200.00
Phosphorus from soil sample by Olson method	100.00	200.00
Ca+Mg from water	50.00	100.00
Irrigation water quality, EC, TSS, SAR, RSC	100.00	200.00

Phosphorus from Plant /meat/ food and feed sample	200.00	500.00
Phosphorus from fertilizer sample	200.00	500.00
Na from soil / water sample	50.00	100.00
Potassium from water/ fertilizer sample	50.00	100.00
Potassium from soil / plant / waste water sample	100.00	200.00
Calcium from water sample	50.00	100.00
Calcium from milk/food/feed sample	100.00	200.00
Na, K and Ca, from urine and serum	100.00	200.00
Carbon contents from food, feed and waste sample	100.00	300.00
Zn, Cu, Fe, Mn, Ni, Mo, Se, Co, Cr, Mg and Pb from water, waste water and urine samples.	Rs. 100/- per sample per element.	Rs. 200/- per sample per element.
Zn, Cu, Fe, Mn, Ni, Mo, Se, Co, Cr, Mg, Pb from Food, Meat, Soil, Plant, fruit and feed sample	Rs. 100/- per sample per element and Rs. 200.00 per sample as digestion charges	Rs. 200/- per sample per element and Rs. 500.00 per sample as digestion charges



### Resource & Training Centre on Biogas:

Presently, this department provide resource and training facilities to students, farmers and community especially in remote areas to fulfill energy requirements from alternate energy sources especially from Biogas from animal dung/different organic wastes. A biogas training unit is established at B-Block Ravi Campus at Pattoki which is 25 m<sup>3</sup> sizes and can provide biogas sufficient to run 30 HP Peter engine for 4-7 hours using hybrid fuel (30% Diesel and 70 % Biogas).



### For Contact:

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### OTHER FACILITIES AVAILABALE

- Flue gas analyzer LANDCOM III having capacity to measure CO<sub>2</sub>, CO, SO<sub>2</sub>, O<sub>2</sub>, NO, NO<sub>2</sub>, H<sub>2</sub>S and C<sub>x</sub>H<sub>x</sub> from vehicles/Generators and industrial exhaust. We also provide training for this instrument. *This facility is also available on rent/day basis to industry.*
- We also provide training on different instruments like pH meter, EC/DO meter, Spectrophotometer, Flame photometer (Single & Multi channel), Atomic absorption Spectrophotometer and titrimetry.

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