

Criterion 4: - Infrastructure and Learning Resources

The Department has one smart classroom, one Ph.D. research laboratory, plant tissue culture facility, animal cell culture facility, potato phenomics laboratory and one M. Sc. laboratory. In addition, the department houses two instruments: (i) DNA sequencer and (ii) Flow cytometer which is part of the Sophisticated instrument facility (SIC) of the University.

The smart classroom is equipped with smart board, LCD monitor and wifi internet connection. The classroom is used to regular lecture, seminars and routine academic activities.

The Ph. D. research laboratory is having all the fundamental equipment and instruments required for basic biotechnology, molecular biology, cell biology and biochemistry experiments. The Ph. D. research laboratory is mainly to facilitate the research of Ph. D. scholars of the Department. The laboratory has refrigerators, -20 °C freezers, -80 °C deep freezer, thermocycler, multimode plate reader, cooling centrifuge, autoclave, gel-doc, microscopes, plant growth chamber, laminar air flow, bacterial incubators, etc.

The department has a fully functional plant tissue culture facility. The facility is used for Ph.D. research work such as the generation of transgenic plants, potato tuberization assays, micropropagation, etc. This facility is also used to provide fundamental training in plant tissue culture to M. Sc. students.

The department has a functioning Animal Cell Culture facility. The facility is used by Ph.D. students for research work such as cytotoxicity assay, ectopic gene expression, protein expression, and functional studies, drug discovery, etc. The M.Sc. student are provided a basic understanding of animal cell culture techniques using this facility as a part of their curriculum.

A potato phenomics facility has been developed in the Department to study physiological changes that occur in the plants (in particular potatoes) in response to changes in its environment.

The Department is the home of two instruments of the University's SIC, (i) DNA sequencer and (ii) Flow cytometer. The make and model of the DNA sequencer is Applied Biosystems Gene Analyzer 3500 and the Flow cytometer is BD FACs Aria III.

The departmental library provides a ready and handy reference of important reference books, textbooks, and manuals to faculty and students of the department. It has more than 150 books on biotechnology, biochemistry, molecular biology, genetic engineering, environmental microbiology, immunology, and medical microbiology. Library also serves to disseminate information regarding ongoing research and the latest publication of the department. The books are made available to the students and faculty members.