



CSIR-CDRI Skill Development Program (under CSIR Integrated Skill Initiative)



Advanced course on Care, Management of Laboratory Animals & Experimental Techniques

The objectives of this training course are to generate skilled human resources ready for employment in the industry and academia. This is a unique opportunity for skill development and basic training in the area of laboratory animal care, management and experimentation. The course will cover the basic of how to manage animal facility, routine care and husbandry practices of animals, experimental procedures and techniques, quality control procedures etc. The trained and skilled candidates will have good job prospect in the area of biomedical research, animal facilities in public and private research institutes, Pharma industries, and academia. The candidates will have opportunity to good exposure for laboratory animals including Non-Human Primates available at State of art Laboratory Animal Facility, CSIR-CDRI.

Duration	: 6 Weeks
No of Seats	: 20
Essential Qualification	: Graduation in Life Sciences, Pharmacy, Medical, Dental, Veterinary & Animal Sciences or equivalent
Nodal Officer	: Dr. D.S. Upadhyay

Training Curriculum

- General introduction to laboratory animals: Research animals of various species, their biology and behaviour, husbandry practices, animal facility layout and functional units
- Laboratory animal breeding: Breeding techniques of different species of laboratory animals, inbreeding and out breeding, breeding and management of transgenic, knockouts and other genetically modified animal models
- Basic experimental animal techniques: Animal handling and restraining, routes of drug administration, sampling techniques, necropsy procedures, anaesthesia and euthanasia.
- Patho-physiology of commonly occurring diseases and their preventive measures: Health monitoring program and methodologies, basic techniques for detection of bacterial and viral diseases in laboratory rodent and other animal colonies, therapeutic and preventive measures, methods of monitoring bacterial load in floor, feed, water and bedding; principles and practices of sanitation and hygiene in animal facility.
- Genetic quality control of laboratory animals: Basic concepts of commonly used techniques in genetic monitoring, isolation of whole genome, PCR amplification with marker panel, agarose gel electrophoresis, observation and reporting.
- Record keeping and documentation: Recording and upkeep of various kinds of animal facility records of animal breeding, receipt, distribution of animals, feed and bedding, disposal etc.
- Animal nutrition: Basic nutritional requirements of lab animals, preparation and formulation of animal feed, storage and distribution, quality analysis etc.
- Animal ethics and welfare: Basic concepts on animal welfare and ethics, basic guidelines and regulations related to use of animals in research and testing, writing and designing animal experimental protocol, roles and responsibility of the IAEC and CPCSEA.
- Management and supervision of laboratory animal facility activities: Principles and practices