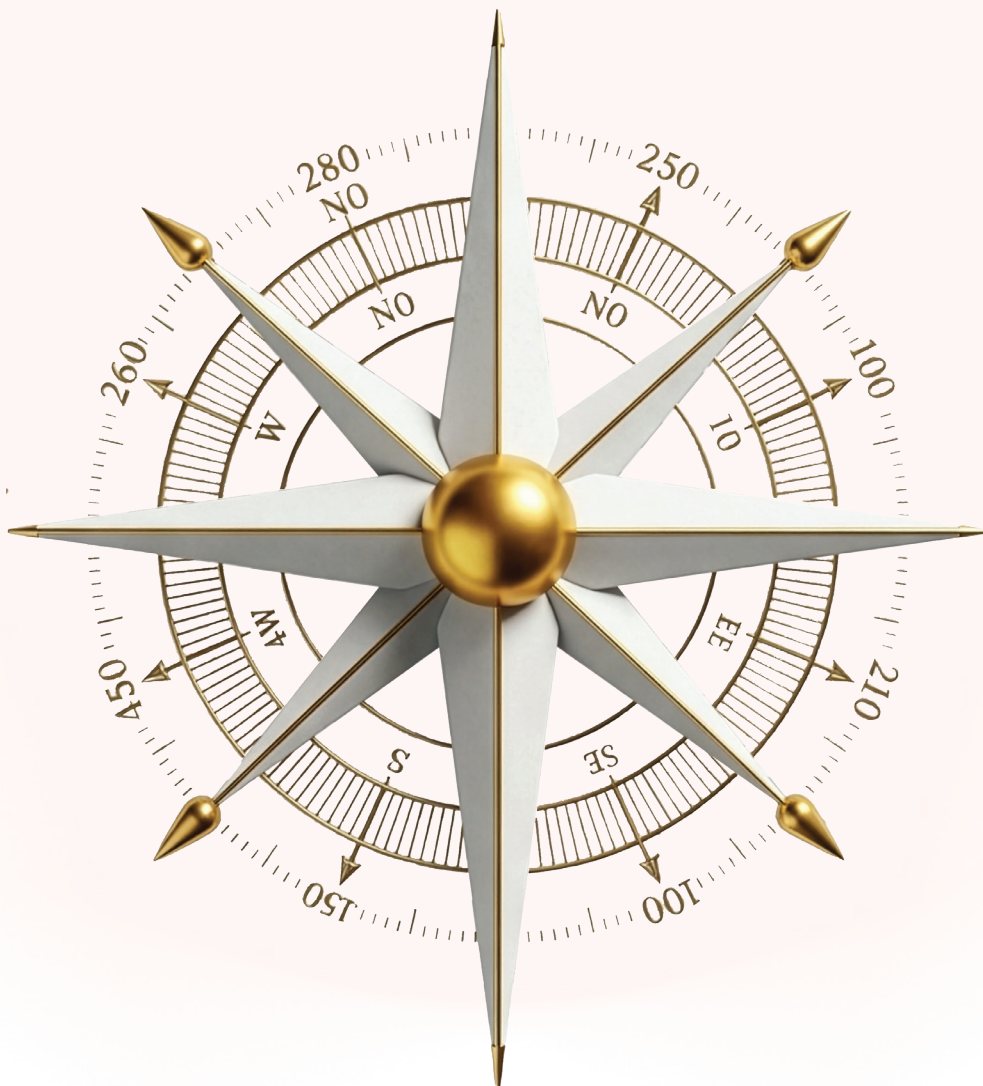




Laboratory Animal Facility Management

Course: Vivarium Operations, Welfare Committees and the 3Rs



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Introduction:

Laboratory animal facility management, covering vivarium operations, welfare committees and the 3Rs, is a 1-week course for vivarium management, veterinary and animal care committee staff that ends with a Vivarium Operations and Animal Welfare Improvement Plan for a case research facility. Research organisations face unplanned colony infections, environmental excursions, weak protocol oversight and failed accreditation site visits when housing, husbandry and committee work run in isolation. Nominees already supervise animal rooms, care staff or protocol review, and the course is taught through inspection walkthroughs of facility plans, room logs and protocol files. CoreConcept Training Center delivers this laboratory animal facility management course.

Course Objectives:

- Structure an animal care and use programme with clear duties for the institutional official, the attending veterinarian, the committee and vivarium management
- Apply the 3Rs of Replacement, Reduction and Refinement when advising investigators on study design, animal numbers and procedures
- Review animal use protocols against committee criteria for justification, pain relief, humane endpoints and euthanasia methods
- Specify barrier zoning, ventilation, lighting, caging and husbandry SOPs that keep animal rooms within set environmental ranges
- Run sentinel health monitoring, quarantine, post-approval monitoring and occupational health arrangements for animals and handlers
- Assess a vivarium against voluntary accreditation expectations and turn the findings into a costed improvement plan

Target Audience:

- Vivarium management staff responsible for animal room operations, staffing, budgets and census reporting
 - Veterinary care staff responsible for colony health, quarantine, analgesia and euthanasia decisions
 - Animal care supervisors responsible for husbandry SOPs, cage change schedules, sanitation and enrichment
 - Animal care and use committee members responsible for protocol review, facility inspection and post-approval monitoring
 - Research facility engineering and safety staff responsible for ventilation, cage washing equipment and handler health
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Course Outline:

Day 1: Animal Care and Use Programme Foundations and Current-State Review

- Animal Care and Use Programme Structure and Institutional Responsibilities
- Attending Veterinarian Authority, Veterinary Care Scope and Reporting Lines
- Species Profiles for Rodents, Rabbits, Fish and Non-Human Primates
- Research Model Demand Forecasting and Animal Census Reporting
- Current-State Vivarium Walkthrough Using Room Logs and Census Data

Day 2: The 3Rs, Committee Protocol Review and Accreditation Frameworks

- Russell and Burch 3Rs Applied to Study Design Decisions
- Replacement Alternatives Screening With In Vitro and In Silico Methods
- Reduction Through Sample Size Justification and Shared Control Groups
- Animal Care and Use Committee Protocol Review Criteria
- Voluntary Accreditation Programme Description and Site Visit Expectations

Day 3: Facility Design, Environmental Controls and Husbandry SOPs

- Barrier Zoning, Clean and Dirty Corridors and Personnel Flow
- HVAC Air Change Rates, Temperature, Humidity and Lighting Cycles
- Individually Ventilated Caging, Bedding and Cage Change Frequency
- Husbandry SOPs for Feeding, Watering, Sanitation and Cage Washing
- Environmental Enrichment and Social Housing Plans by Species

Day 4: Colony Health, Humane Endpoints and Welfare Risk Controls

- Sentinel Health Monitoring and Quarantine of Incoming Animals
- Humane Endpoint Scoring Sheets and Euthanasia Method Selection
- Post-Approval Monitoring Visits and Protocol Deviation Handling
- Allergen Exposure Controls and Occupational Health for Animal Handlers
- Environmental Excursion and Colony Disease Outbreak Response Records

Day 5: Inspection Walkthrough Workshop for the Vivarium Improvement Plan

- Semiannual Facility Inspection Walkthrough of a Case Vivarium
 - Protocol File Audit Against Committee Approval and Endpoints
 - Husbandry and Environmental Records Gap Scoring for the Case
 - Accreditation Readiness Checklist Applied to Case Findings
 - Vivarium Operations and Animal Welfare Improvement Plan Completion
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Skills You Will Gain:

- Animal Care Programme Governance
- 3Rs Study Design Advice
- Animal Protocol Review
- Vivarium Environmental Control
- Husbandry SOP Development
- Sentinel Health Surveillance
- Humane Endpoint Assessment
- Accreditation Readiness Assessment

Why Attend This Course:

- Present a Vivarium Operations and Animal Welfare Improvement Plan to the institutional official, the attending veterinarian and the animal care and use committee
- Decide which protocols need endpoint revision, which rooms need environmental correction and which housing needs enrichment, using inspection evidence
- Avoid colony infections, protocol deviations, handler allergy cases and accreditation findings that interrupt research schedules
- Equip care staff and committee colleagues with inspection checklists, endpoint scoring sheets and husbandry SOP templates from the walkthroughs

Conclusion:

Back at work, the participant hands the Vivarium Operations and Animal Welfare Improvement Plan to the institutional official, the attending veterinarian and the animal care and use committee. They use it to agree which environmental, husbandry, health monitoring and protocol oversight gaps to close first, which 3Rs actions to propose to investigators and what resources accreditation readiness needs. After the first semiannual inspection under the plan, the unit should compare sentinel results, environmental excursions, protocol deviations and inspection findings with the baseline and revise priorities.

Frequently Asked Questions FAQ:

What should participants know before a laboratory animal facility management course?

Participants should already supervise animal rooms, care staff, veterinary care or protocol review in a research setting. Bringing anonymised room logs, census reports, inspection findings or protocol forms helps them test the walkthrough method on their own vivarium.

How does laboratory animal facility management differ from a laboratory biosafety course?

It concentrates on housing, husbandry, colony health, welfare committees and the 3Rs for research animals. A laboratory biosafety course addresses biological agent risk, containment and biosecurity for laboratory workers, and treats animals only as one possible source of hazard.

Why do laboratory animal facility management teams apply the 3Rs?

The 3Rs give a practical test for every study: replace animals where another method meets the scientific aim, reduce numbers through sound design, and refine housing and procedures to keep pain and distress to a minimum.

What do participants take back from the laboratory animal facility management course?

Participants take back a Vivarium Operations and Animal Welfare Improvement Plan for a case research facility, with an inspection checklist, endpoint scoring sheet, sentinel monitoring schedule and accreditation readiness checklist they can adapt to their own facility.
