

Rodent Anesthesia & Monitoring – ACS885

University of Florida Animal Care Services Training Core

Target Audience: Research staff and PIs using isoflurane anesthesia in rodent models

Course Type: 1hr contact wet lab

Course Description:

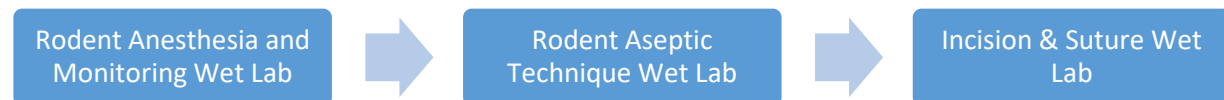
This course is designed to cover basic rodent anesthesia and monitoring. This course includes general information regarding rodent anesthesia, anesthetic depth monitoring, use of equipment, and drug dosages as the primary focus. Surgical recordkeeping and post-surgery follow up will also be discussed.

Enrollment in the UF animal contact program is required prior to course sign up. Student must be approved on an Animal Use Protocol with anesthesia listed as a study role prior to course sign up.

Prerequisite Courses:

- Rodent Aseptic Technique (UF_ACS840_OLT) – online course
- Mouse and Rat Biomethodology (UF_ACS845_OLT) – online course
- Mouse or Rat Biomethodology Wet Lab (UF_ACS890_ILT, UF_ACS892_ILT, UF_ACS891_ILT, or UF_ACS893_ILT) – hands-on

Recommended Course Flow:



Course Goals:

Personnel who complete this course will successfully be able to perform and demonstrate:

- Correct set up and use of a gas anesthesia machine and precision vaporizer
- Appropriate mitigation of waste anesthetic gases (WAGs)
- Supportive care of anesthetized rodents including thermal support and temperature monitoring and the use of ophthalmic lubricants
- Weighing animals and calculating appropriate drug dosages
- Induction of anesthesia
- Anesthetic depth assessment and monitoring
- Recovery from anesthesia

Personnel who complete this course successfully will be able to discuss proper techniques for:

- Surgical Recordkeeping
- Administration of perioperative drugs (SQ or IP)
- Post-Surgery monitoring and follow-up

Definitions:

- **Discussion** – course instructors will briefly discuss associated procedures/policy
- **Demonstration** – course instructors will demonstrate techniques; however, participants will not be required to practice or verify skills
- **Hands-on** – course instructors will demonstrate techniques and assist participants in practicing the technique utilizing live animals
- **Verification** – participants will be required to demonstrate proficiency with the skill/technique to complete training

Topic	Discussion	Demonstration*	Hands-on*	Verification*
Gas anesthesia circuit, vaporizer and set up	X		X	X
Isoflurane level assessment and refill (if needed)	X	X		
Leak testing and nose cone replacement (if needed)			X	X
Placement of induction chamber and snorkel	X		X	
Surgical recordkeeping	X		X	
Weigh animal and record weight in surgical record	X		X	X
Calculating appropriate drug dosages	X		X	X
Use of thermal support (heat disc)			X	X
Anesthesia induction	X		X	X
Application of ophthalmic lubricant	X		X	X
Administration of perioperative drugs (SQ or IP)	X	X		
Movement of anesthetized animals	X		X	
Monitoring anesthetic depth	X		X	X
Anesthesia troubleshooting	X			
Recovery	X		X	X
Post-surgery monitoring and follow up	X			

**All participants will be instructed to wear the proper PPE required for working with rodents prior to starting any activity with live animals*

Participant Evaluation:

If participants are unable to demonstrate proficiency with the skill/techniques listed for “Verification,” they will be marked as “did not pass” in myTraining within the UF training system and a one-on-one training session to review the techniques will be scheduled.