

## **OFFSITE SWINE COURSE**

**M. Michael Swindle, DVM**

The course outline below is flexible and can be tailored to the needs of the institution.

### **DAY 1**

*Morning Lectures:*

#### Anesthesia/Analgesia-1 hour

The lecture includes the principles to be followed in selection of an anesthetic protocol. This includes consideration of the physiologic effects of anesthetics and tailoring a protocol to minimize experimental variables. It also includes the physiologic processes involved in the prevention of pain and distress. Specific recommendations are made for anesthetic and analgesic protocols for various experimental procedures.

#### Catheter and Device Implantation-1 hour

Principles involved in the implantation of biomaterials, catheters, fistulas and devices are discussed. This includes specific surgical techniques for implantation and prevention of complications.

#### Perioperative Care Procedures-30 minutes

This is an extension of a brief introductory overview of husbandry, handling, preparation for surgery and monitoring of animals which is included in the lectures on Anesthesia and Catheter Implantation. In both of those lectures an overview of the procedures is provided in a few slides. Generally, this lecture is important for research groups performing complex survival surgical procedures.

#### Lunch-Can be working lunch

*Afternoon Lecture:*

#### Comparative Anatomy and Models-1.5 hours

The lecture provides information on the comparative anatomy and physiology of the various organs and systems of the pig as compared to humans. The lecture is organized by system and includes discussion of the most common models that are used within each system.

#### Surgical Lab Demonstration-1 hour

I demonstrate all the procedures to be performed on one pig. This demonstration may be performed at the start of the laboratory on the second day.

## **DAY 2**

8:00 am Surgical Laboratory: Intubation, venipuncture, neck and femoral cutdowns, abdominal procedures, thoracic procedures, troubleshooting of problem models and protocols. Require 1 pig / 4 people. Need ventilator and iv fluids.-3-4 hours

Leave pm