

## FRACTURE COURSE 1

### PRINCIPLES OF FRACTURE REPAIR - Humerus, Radius, Femur, Tibia

#### Day 1

- 8:00am Welcome & Introductions
- 8:05am How Do Bones Heal?
- 8:30am Fracture Repair – Anatomic Reduction or Bridging Repair?
- 9:00am Rebuilding Fractures with Pins, Cerclage and Lag Screws
- 9:20am **Laboratory 1: Tibial Fracture Repair**  
(Plastic Bone Model) – Pin, Cerclage and Lag Screw
- 10:00am Locking Plates give you the Edge you Need to Succeed
- 10:40am Distal Radial Fractures and Surgical Approach
- 11:00am **Laboratory 2: Direct Reduction of Distal Radial Fracture**  
(Cadaver) – Bone Plate
- 12:00pm Lunch
- 12:30pm **Laboratory 2 Continued: Direct Reduction of Distal Radial Fracture**  
(Cadaver) – Bone Plate
- 2:00pm Tibial Fractures and Surgical Approach
- 2:30pm **Laboratory 3: Indirect Reduction of Tibial Shaft Fracture**  
(Cadaver) – Plate and Rod
- 5:30pm Conclusion of Day 1

#### Day 2

- 7:30am Review of Day 1 Radiographs
- 8:00am Femoral Shaft Fractures and surgical approach
- 8:30am **Laboratory 4: Direct Reduction of Femoral Shaft Fracture**  
(Cadaver) – Cerclage and Bone Plate
- 10:15am **Laboratory 5: Indirect Reduction of Femoral Shaft Fracture**  
(Cadaver) – Plate and Rod or Double-Plate
- 11:30pm Humeral Shaft Simple Fractures and surgical approach
- 12:00pm Lunch

12:30pm **Laboratory 6: Indirect Reduction of Comminuted Humeral Shaft Fracture**

(Cadaver) – Pin and Plate Medial Approach

2:45pm Conclusion of Course

## **Course Description**

Do you have difficulty approaching or reducing long bone fractures? Are you interested in learning simple techniques designed for the general practitioner to repair the most common fractures in dogs and cats? This laboratory is the one for you! We will teach reliable techniques and give valuable practical tips useful in repairing simple and more challenging comminuted fractures of long bones. New implant designs have made fracture repair much simpler and more affordable. In addition, postoperative management of patients has also been simplified and complications are rare if the principles of fracture repair are followed.

This course will familiarize participants with fracture repair techniques through lecture and clinical case presentations. Following lecture and case review, participants will repair fractures on plastic bone models and cadavers. Postoperative radiographs will be taken to evaluate the participants repair technique.

## **Learning Objectives**

- Understand the principles of bone healing and the differences between secondary and primary bone healing.
- Review fracture classification and choice of fixation.
- Discuss the concept of direct versus indirect fracture reduction and decision making on approach.
- Appreciate the biomechanics and decision making for intramedullary pins, cerclage wire, bone screws, bone plates and methods of bone plating (compression, neutralization, and bridging).