

# UT SOUTHWESTERN DEPARTMENT OF SURGERY

## TECHNICAL SKILLS COURSE OUTLINE

**Course Title:** Advanced Mechanical Ventilation

**Course Director:** Name: Heidi Frankel, MD, FACS  
Specialty: Trauma and Surgical Critical Care

**Additional Course Faculty:** Name: Dean Holland  
Jackie Boynton  
SICU fellows  
Specialty: Parkland Hospital Respiratory Care

**Participants:** Specialty: Surgery  
Level: PGY 3  
Number of participants for the entire course: 16

**Expected Attendance:** 16 participants divided into 2 groups

# of Wednesday Morning Sessions Assigned to Each Trainee: 1  
Duration of Each Session (max 2 hrs): 1.5 hrs  
# of Trainees per session: 8

**Course Completion Verification** – Successful course completion depends on attendance and achieving a score of 70% on a multiple choice exam.

**Self-study or Self-practice** (Is self-study or self-practice an expectation of this course?)

X  No

**Training Location(s):** Respiratory Core Lab

**Equipment/Simulator(s):** Drager Evita 4 Ventilator, Bear T-Bird AVS Ventilator, Michigan Lung Simulator

**Other Resources (Textbooks, CD-ROMS, Videos, etc):** CD Rom, Power Point Lecture

**Educational Scope:** **Skills:** Ventilator manipulation

**Cognitive:** Critical thinking/Problem solving with patient-simulated ventilatory problems.

**Judgement:** Recognition of essential and advanced ventilatory management and intervention. Recognition of surgical problems resulting in respiratory failure and maneuvers to improve oxygenation and ventilation.

**Learning Objectives:** Participants should learn essential and advanced components of ventilatory managements and demonstrate the ability to make appropriate changes/interventions. In addition, residents will learn evidence-based guidelines for ventilator management. Interpretations of pressure-volume curves and recognition of auto-PEEP.

**Summary of Curriculum, Teaching Methods, and Resource Utilization:** Didactic and hands on experience managing common ventilatory patient scenarios. Hands on lab provide immediate feedback regarding ventilatory interventions.

**Methods for giving feedback to learners (Formative and Summative):** Immediate from ventilator and verbal from instructor

**Methods for Assessment of Learners:** Immediate from ventilator and verbal from instructor

**Methods for Course Evaluation:** by Learners-open feedback  
By Faculty-open feedback