ADJUSTABLE PARAMETERS FOR
THE HUMAN PATIENT SIMULATORS
“STAN” and “Lil Joe”

[GREEN also denotes areas that the student can clinically assess.]

I Cardiovascular
a) Catheters:
   - Cardiac output measurement
   - Atrial: peripheral and left ventricle locations
   - Central Venous, (CVP): intrathoracic and extrathoracic vein locations
   - Pulmonary Artery: pulmonary artery, intrathoracic vein, right atrium, and right ventricle locations

b) External cardiac stimulation:
   - Defibrilation and cardioversion
   - Pacing: capture threshold, current, and rate

c) Heart:
   - Baroreceptor Gain, (cardiac) Factor
   - Cardiac rhythm override
   - Contractility factor: Left ventricle, Right ventricle
   - Fixed Heart Rate
   - Heart Rate Factor
   - Heart sounds
   - Ischemic Index averaging
   - Ischemic Index sensitivity
   - Pericardial Fluid
   - Pericardiocentesis
   - Resistance Factor
   - Aortic Valve
   - Mitral Valve
   - Pulmonic Valve
   - Pulses, (left and right can be independently controlled)
   - Chest compression Efficacy

d) Systemic
   - Baroreceptor gain, (overall) Factor
   - Baroreceptor gain, (peripheral) factor
   - Baroreceptor maximum pressure
   - Baroreceptor minimum pressure
   - Elastance: extrathoracic arteries
   - Intrathoracic arteries
   - Resistance Factor: Venous Return
   - Venous Capacity Factor
II Respiratory

a) Airway
   - Airway occluder / resistance
   - Laryngospasm
   - Swollen tongue
   - Bronchial Occlusion
   - PEEP

b) Lung
   - Chest Wall compliance Factor
   - Functional Residual Capacity
   - Breath sounds
   - Chest Wall Capacity
   - Chest Wall Compliance
   - Distended Chest Wall Compliance Factor
   - Fixed Alveolar Enflurane
   - Fixed Alveolar Halothane
   - Fixed Alveolar Isoflurane
   - Fixed Alveolar Sevo Flurance
   - Fraction of inspired Oxygen Override
   - Intrapleural Volume: left and right
   - Lung Compliance Factor: Left and right
   - Ph shift
   - Venous Carbon Dioxide Shift
   - Chest tube air leak
   - Chest Tube flow rate
   - Needle decompression

c) Respiratory Control
   - Carbon Dioxide Production Factor
   - Carbon Dioxide Setpoint
   - Fixed neuromuscular blockade.
   - I to E ratio
   - Oxygen Consumption
   - PetCO2 – PaCO2 Factor
   - Respiratory Gain Factor
   - Respiratory Quotient
   - Respiratory Rate Factor
   - Respiratory Rate Override
   - Shunt Fraction
   - Tidal Volume Factor
   - Tidal Volume Override
   - Volume/Rate Control Factor
IV Other Patient Conditions:

a) Assessment
   - Bowel sounds
   - Eyes: blink control, blink speed, pupil diameter
   - Fixed neuromuscular blockade

b) Other parameters
   - Intracranial pressure
   - Patient weight
   - Arterial Temperature
   - Body Temperature

c) Fluids
   - Blood loss
   - Fluid loss—plasma
   - Fluid infusion: Colloids, Crystalloids, Packed RBC, Whole Blood
   - Urine output