# Simulation Lab Calendar of Events

## Fall – Junior

- **Week 1– Simulation Immersion Experience**
  - Students work in groups at specific stations
    - Introduced to the basic principles of preparing the anesthetizing site (OR) for patient care
    - Introduced to the anesthesia workstation
      - Drager Narkomed GS
      - Drager Fabius Premium
      - GE Aisys
    - Utilize task trainers and airway equipment for skills development
      - Airway Larry
      - Trucorp Airway trainer
      - Ingmar RespiTrainer
  - Faculty:
    - Cindy Betron, DNP CRNA CHSE
    - See Sim Lab General Faculty on page 6

## Simulation Activity

- **Immersion week**
  - SOAPTIM
  - Anesthesia workstation checkout procedure
  - Basic airway equipment and airway management principles
    - Mask ventilation
    - Oral/nasal airway insertion
    - Introduction to Laryngeal Mask Airway insertion
    - Introduction to endotracheal intubation
    - Glidescope intubation
  - Perioperative patient flow
# Simulation Lab Calendar of Events

## Fall – Junior
- Weeks 3 through 12
- September through November
- Weekly Friday Simulation activities
  - Students are oriented to anesthesia simulation with the use of the Gaumard HAL\textsuperscript{®} adult patient simulator with dynamic lung features for mechanical ventilation, the Laerdal SimMan Essential\textsuperscript{®} human patient simulator & the Laerdal ALS Simulator
  - Students attend Tuesday or Friday skills labs
  - Students have access to multiple anesthesia equipment & devices with simulated medications similar to those seen in clinical practice
  - Students have access to both the Drager Narkomed GS & Drager Fabius Premium plus the state of the art GE Aisys anesthesia workstations
  - Small group faculty-directed practice & review sessions are scheduled prior to competency check-outs
  - Students work with:
    - Cindy Betron, DNP CRNA CHSE
    - CRNA faculty members
    - Senior students

## Simulation Activity
- Orientation to simulation and lab setting
- SOAPTIM review and check-out
- Anesthesia workstation review and check-out
  - Setup, maintenance, and trouble-shooting the anesthesia workstation including the Drager Narkomed GS, Drager Fabius Premium and GE Aisys
- Sedation management
  - Practice with setting up infusion pump devices including the CareFusion\textsuperscript{®} syringe pump and infusion channel plus the Medfusion\textsuperscript{®} syringe pump
- General induction sequence for LMA and endotracheal intubation including rapid sequence induction (RSI)
  - Introduction sessions
  - Faculty supervised small group practice sessions
  - Competency check-out
- Patient positioning
  - Didactic and simulation
- Preoperative evaluation/assessment with standardized patient
  - Anesthesia care plan formulation
  - Obtaining anesthesia consent
  - Effective handoff communication
- Perfusion block placement
- Case Management strategies

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## Simulation Lab Calendar of Events

### Winter – Junior

- **Weeks 16 - 27**
- **January - March**
  - Students attend Friday simulation sessions utilizing the Gaumard HAL® adult patient simulator with dynamic lung features for mechanical ventilation, the Laerdal SimMan Essential® human patient simulator, the Gaumard HAL® 5 year old pediatric simulator, and the Laerdal SimNewB® newborn patient simulator
  - Students work in small group faculty-directed case management sessions for frequently encountered respiratory and hemodynamic events
  - Students utilize various spinal and epidural task trainers
    - Spinal and epidural needle/catheter placement kits are utilized similar to those seen in clinical practice
  - Students work in small group faculty-directed case management sessions for obstetrical related complications
  - Faculty:
    - Cindy Betron, DNP CRNA CHSE
    - CRNA faculty members

### Simulation Activity

- **Management of respiratory and airway complication scenarios**
  - Patient assessment and chart review
  - Anesthesia plan of care development
  - Implementation of plan of care
  - Adjust titration of anesthesia care delivery based on patient’s presenting/developing issue
  - Participation in group pre-briefing, debriefing, & problem-based learning discussion

- **Hemodynamic management related to anesthesia or surgical complications**
  - Patient assessment and chart review
  - Anesthesia plan of care development
  - Implementation of plan of care
  - Adjust titration of anesthesia care delivery based on patient’s presenting/developing issue
  - Participation in group pre-briefing, debriefing, & problem-based learning discussion

- **Spinal/Epidural placement**
  - Combined didactic and simulation
  - Individual practice session time
  - Competency check-out

- **Management of an obstetrical patient scenario**
  - Patient assessment and chart review
  - Anesthesia plan of care development
  - Implementation of plan of care
  - Adjust titration of anesthesia care delivery based on patient’s presenting/developing problem
  - Participate in group pre-briefing, debriefing & problem-based learning discussion

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# Simulation Lab Calendar of Events

**Spring – Junior**
- Weeks 28 - 40
- April - June
  - Students attend Friday simulation sessions
  - Students utilize the Gaumard HAL® adult patient simulator with dynamic lung features for mechanical ventilation, the Laerdal SimMan Essential® human patient simulator with dynamic lung features, the Gaumard HAL® 5 year old pediatric simulator, & the Laerdal ALS Simulator and address patient safety concepts
  - Students utilize the newborn task trainer and the Laerdal SimNewB® newborn patient simulators
  - Students utilize task trainers related to anesthesia subspecialty
    - Airway Larry
    - Trucorp AirSim Bronchi trainer
    - Ingmar RespiTrainer
    - Simbionix Fiberoptic Trainer
    - A-Scope fiberoptic scopes
    - Glidescope
    - GE Venue 40
  - Central & Arterial Line Task trainers
  - Peripheral nerve block trainers
    - Interscalene
    - Femoral
  - Work with:
    - Cindy Betron, DNP CRNA CHSE
    - CRNA faculty for advanced airway techniques
    - CRNA faculty for invasive line placement
    - St Christopher’s Hospital for Children & Children’s Hospital of Philadelphia (CHOP) CRNA faculty

**Simulation Activity**
- Management of complex anesthesia complications/problems
  - Patient assessment and chart review
  - Anesthesia plan of care development
  - Implementation of plan of care
  - Adjust titration of anesthesia care delivery based on patient’s presenting/developing problem
  - Participation in group debriefing and problem-based learning discussion
- Advanced airway techniques
  - Video laryngoscopy equipment
  - Fiberoptic scope
  - Other advanced airway techniques and equipment
  - Specialty endotracheal tubes
  - Cricothyrotomy needle placement utilizing pig trachea and task trainers
- Central line insertion including Swan-Ganz catheter placement utilizing ultrasound guidance
  - Cardiac room set-up
- Pediatric ‘Boot Camp’
  - Room setup/equipment and fluid management
  - Pediatric anesthesia scenarios
  - Problem-based learning discussion
  - Advanced pediatric simulations
    - Postoperative bleeding tonsil
    - Local anesthesia toxicity post caudal injection
- Peripheral nerve block placement utilizing Stimplex nerve stimulation and ultrasound guidance techniques

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- CRNA faculty for peripheral nerve block placement

**Senior Year**
- September through June
  - Students attend Wednesday Crisis Resource Management (CRM) simulation sessions
  - Students utilize the Gaumard HAL® adult patient simulator with dynamic lung features for mechanical ventilation, the Laerdal SimMan Essential® human patient simulator the Gaumard HAL® 5 year old pediatric simulator, & the Laerdal ALS Simulator
    - Advanced patient safety concepts are addressed
    - Faculty:
      - Cindy Betron, DNP CRNA CHSE
      - CRNA faculty for CRM
- Guest speaker
  - John O’Donnell, CRNA, MSN, DrPH,

**Simulation Activity**
- Crisis Resource Management lecture
- Crisis Resource Management Scenarios
  - Malignant Hyperthermia
  - Laser endotracheal tube fire
  - Neck dissection/trach
  - ASA Difficult Airway algorithm
  - VAE or pneumothorax
  - OB catastrophe
  - AFE or Trauma
  - Post-partum hemorrhage

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Simulation Lab Calendar of Events

SIMULATION LAB GENERAL FACULTY

Cynthia Betron, DNP, CRNA, CHSE, CNE, Simulation Lab Director (Frank J Tornetta School of Anesthesia)
Stephen Carr, CRNA, MSN (Wellspan York Hospital)
Paul Comuso, CRNA, MSN (Cooper University Hospital)
Adam D’Alonzo, CRNA MSN (Abington Hospital - Jefferson Health)
Lauren Kraft, CRNA, MSN (St Luke’s Hospital – Bethlehem)
Michael Kost, DNP, CRNA, CHSE (Frank J Tornetta School of Anesthesia)
Kristin Markmann, CRNA MSN (Penn Presbyterian Medical Center)
Breianna Rompala, CRNA MSN (University of Pittsburgh Medical Center – Presbyterian Hospital)
Jeff Rompala, CRNA MSN (University of Pittsburgh Medical Center – Presbyterian Hospital)
Elizabeth Stewart, CRNA MSN (St Luke’s Hospital, Allentown, PA)
Derek Yohn, CRNA MSN (Pinnacle Health – Harrisburg, PA)
Jamie Younger, CRNA MSN (St Luke’s Hospital – Bethlehem)

Crisis Resource Management/TeamSTEPPS

Cynthia Betron, DNP, CRNA, CHSE, CNE, Simulation Lab Director (Frank J Tornetta School of Anesthesia)
Michael Kost, DNP, CRNA, (Frank J Tornetta School of Anesthesia)
Kristin Markmann, CRNA MSN (Penn Presbyterian Medical Center)
Elizabeth Stewart, CRNA MSN (St Luke’s Hospital, Allentown, PA)
Kelly Stillwell, CRNA MSN (Penn Presbyterian Medical Center)

Central Line Insertion

Dan Graves, CRNA MSN (St Luke’s Hospital, Bethlehem, PA)
Ray Rivera, MSPAS, PA-C (St Luke’s Hospital, Bethlehem, PA)
Kelly Stillwell, CRNA MSN (Penn Presbyterian Medical Center)

Fiberoptic Bronchoscopy Workshop

Brittany Scalley, CRNA MSN (Penn Presbyterian Medical Center)

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Peripheral Nerve Block Placement Training Sessions

Jeff Petrillo, CRNA MS (United Anesthesia Services, Abington Memorial Hospital, Lansdale)
Dr Scott Zalut (Einstein Healthcare Network)

Pediatric Faculty Team (Pediatric Boot Camp)

Dawn Bent, DNP CRNA (Clinical Coordinator, St Christopher’s Hospital for Children)
Robert Grasso, CRNA MSN (St Christopher’s Hospital for Children)
Don Rank, MSN CRNA (Chief CRNA, St Christopher’s Hospital for Children)
Rob Simon, CRNA MS (Children’s Hospital of Philadelphia)

Airway Workshop Team

Michael Hartman, DNP CRNA (Lehigh Valley Healthcare Network)
Michael Sweeney, CRNP, CCRN, CFRN, CNRN, CPEN, CEN, PHRN (Chestnut Hill Hospital)
Jim Pisaturo, EMT-P (University of Pennsylvania)
Dr. Kenneth Butler, DO, FACEP, FAAEM (Associate Professor University of Maryland)

Simulation Lab Consultant

John O’Donnell, CRNA, MSN, DrPH (University of Pittsburgh School of Nursing)
Professor and Chair, Department of Anesthesia
Director, Nurse Anesthesia Program
Associate Director, The Peter M. Winter Institute for Simulation, Education, and Research (Wiser)

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