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| Summer – 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       * Gaumard Airway trainer   + Faculty:     - Cindy Betron, DNP CRNA CHSE     - See Sim Lab General Faculty 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 |

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| Summer – Junior   * Weeks 3 through 12 * June through August * Weekly Friday Simulation activities   + Students are oriented to anesthesia simulation with the use of the Gaumard HAL® adult patient simulator with dynamic lung features for mechanical ventilation   + 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     - See Sim Lab General Faculty page 6 | 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® syringe pump and infusion channel plus the Medfusion® 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 * Case Management strategies |

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| Fall – Junior   * Weeks 16 - 27 * September - December   + Students attend simulation sessions utilizing the Gaumard HAL® adult patient simulator with dynamic lung features for mechanical ventilation, 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     - See Sim Lab General Faculty page 6 | 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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| 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 Gaumard HAL® 5-year-old pediatric simulator to 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 Subspecialty Faculty:       * Advanced Airway       * Invasive Lines       * Pediatrics       * Peripheral Nerve Blocks | 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 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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| Senior Year   * September through June   + Students attend Crisis Resource Management (CRM) simulation sessions * Students utilize the Gaumard HAL® adult patient simulator with dynamic lung features for mechanical ventilation, the Gaumard HAL® 5-year-old pediatric simulator, & the Laerdal SimNewB infant Simulator   + Advanced patient safety concepts are addressed   + Faculty:     - Cindy Betron, DNP CRNA CHSE     - Elizabeth Stewart, CRNA, MSN     - Kristin Markman, DNP, CRNA     - Ashton Heydt, CRNA, MSN | 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 |

**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)

Rosa Dominicis, CRNA, MSN (Tower Health, Reading, PA)

Paul Douglass, CRNA, MSN (Abington Hospital – Jefferson Health)

Dan Goral CRNA, MSN (Abington Hospital - Jefferson Health)

Lindsay Hearing, CRNA, MSN (Inspira Medical Center Vineland, NJ)

Ashton Heydt, CRNA, MSN (St Luke’s Hospital – Bethlehem)

Lauren Kraft, CRNA, MSN (St Luke’s Hospital – Bethlehem)

Teresa Kubek, CRNA MSN (Tower Health, Reading, PA)

Michael Kost, DNP, CRNA, CHSE, Director Frank J Tornetta School of Anesthesia

Kristin Markmann, DNP, CRNA, (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)

Sarah Trinkle CRNA, MSN (St Luke’s Hospital – Bethlehem)

Angelina Vitale, CRNA, MSN (St Mary Medical Center, Langhorne, 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, CHSE, FAAN, Director Frank J Tornetta School of Anesthesia

Kristin Markmann, DNP, CRNA, (Penn Presbyterian Medical Center)

Elizabeth Stewart, CRNA, MSN (St Luke’s Hospital, Allentown, PA)

**CENTRAL LINE INSERTION\***

Dan Graves, CRNA, MSN (St Luke’s Hospital, Bethlehem, PA)

Ray Rivera, MSPAS, PA-C (St Luke’s Hospital, Bethlehem, PA)

Paul Comuso, CRNA, MSN (Cooper University Hospital)

**FIBEROPTIC BRONCHOSCOPY WORKSHOP\***

Brittany Scalley, CRNA, MSN (Penn Presbyterian Medical Center)

**PERIPHERAL NERVE BLOCK PLACEMENT TRAINING SESSIONS\***

Jeff Petrillo, CRNA, MS (United Anesthesia Services, Abington Memorial Hospital, Lansdale)

**PEDIATRIC FACULTY TEAM (PEDIATRIC BOOT CAMP)\***

Kelly Pucillo, CRNA, MSN (St Christopher’s Hospital for Children)

Robert Simon, DNP, MS, CRNA, CHSE, CNE Assistant Director Frank J Tornetta School of Anesthesia

(Holy Redeemer Hospital, also formerly at Children’s Hospital of Philadelphia)

**AIRWAY WORKSHOP TEAM\***

Stephen Carr, CRNA, MSN (Wellspan York Hospital)

Paul Comuso, CRNA, MSN (Cooper University Hospital)

**ULTRASOUND TRAINING TEAM\***

Dan Graves, CRNA, MSN (St Luke’s Hospital, Bethlehem, PA)

Ray Rivera, MSPAS, PA-C (St Luke’s Hospital, Bethlehem, PA)

Paul Comuso, CRNA, MSN (Cooper University Hospital)

Jeff Petrillo, CRNA, MS (United Anesthesia Services, Abington Memorial Hospital, Lansdale)

\* Per Diem Hourly Employee

**SIMULATION LAB CONSULTANT**

John O’Donnell, DrPH, MSN, RN, CRNA, CHSE, FSSH (University of Pittsburgh/Nurse Anesthesia Program)

Professor and Chair, Department of Anesthesia

Director, Nurse Anesthesia Program

Associate Director, The Peter M. Winter Institute for Simulation, Education, and Research (Wiser)