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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
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**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)