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Clinical Clerkship Program (Phase III) 5th Year

  Medicine I
  Surgery I
  Pediatrics

Clinical Clerkship Program (Phase III) 6th year

  Obstetrics & Gynecology
  Special Sense and Mental Health
Clinical Simulation Center Facilities

Clinical simulation center – Jeddah (CSC-J) was established on September 2016. It provides a safe experiential learning with hands-on educational activities to medical students to promote successful understanding of clinical education.

The CSC-J laboratories provide state of art equipment, simulators, and anatomical models which allow medical students to practice basic skills such as recognizing cardiac sounds (i.e. normal and pathologic), suturing, central and peripheral vein access, pelvic exam, prostate exam, etc. prior to entering the clinical setting. These learning experiences are planned and supervised by the Clinical Affairs Department at College of Medicine with help from different clinical departments in king Abdulaziz Medical City-Jeddah.

The CSC-J faculty and administration core value is to benchmarking student’s clinical experience and enlightening it to serve the best interest of the students. We will attempt to include all environmental factors to make student’s learning experience realistic and authentic.
Vision

Achieve the global excellence in medical simulation education by providing high quality cutting edge education, multidisciplinary training and assessment to enhance the healthcare and quality patient safety.

Mission

Clinical simulation center (CSC-J) provides high standard, excellent internationally recognized academic opportunities. Moreover, it focuses on integrated simulation-based medical education through creating safe learning environment, high quality medical research and full commitment in serving community to promote health in the society.

Core Value

- High Ethical Standards
- Relevance
- Respect & Culture Sensitivity
- Excellence/High Quality
- Leadership/ Teamwork & Collaboration
- Ingenuity/Scientific Creativity
- Integrity
- Trust
CSC-J facilities are distributed in three floors (appendix1)
Simulation venues

Are in the third floor that include OR recovery rooms, NICU, Adult ICU, in-patient adult, in-patient pediatric, virtual reality room, labor and delivery and . Each venue contains an advanced high fidelities manikins, task trainers, series of medical equipment and diagnostic tools to be used in different simulation scenarios and procedural demonstrations.

Clinical skills laboratories

Located in fourth floor. Each lab contains an advanced task trainers, series of medical equipment and diagnostic tools to be used in different clinical skills procedure.

Clinics

Located in the ground floor. There are 21 Clinics comprise Examination tables, Medication trolley, Blood pressure measurement apparatus, Otoscope and Ophthalmoscope to conduct an objective structured clinical examination (OSCE) and sessions that require setting of clinical environment.
Simulation Venues

The simulation venues are learning environments that are fully equipped to simulate a hospital setting in order to enhance the setting of clinical situations and simulation scenarios development.

- Recovery Room
- NICU, Room
- Adult ICU Room
- In-patient adult Room
- In-patient pediatric Room
- Virtual reality Room
- Labor and delivery Room
- Operation room
Clinical Skills Laboratory

The Clinical skills laboratories are fully equipped physical space that provide safe and controlled environment in which learners can practice clinical skills and critical thinking before using them in real clinical settings.

Clinical skills laboratories have been developed to support the acquisition, maintenance and enhancement of student’s clinical skills in healthcare profession.

Clinical skills that can be taught and learned include history taking, teamwork communication skills, physical examination and technical and practical procedures.

Clinical skills laboratories include Basic Skills Training lab, IV Injection Training lab, Procedure training lab, OB/ Gynae/Urology Airway training lab and Harvey tee lab.

We have Clinical skills laboratories that include.
※ Basic Skills Training lab
  • Ear examination simulator
  • Eye examination simulator
  • Breast Exam Task
  • Blood Pressure training arm
  • Trainer Abdominal Palpitation Task Trainer

※ IV Injection Training lab
  • Intradermal Injection task Trainer
  • Central Venous Catheter Insertion
  • Intramuscular Injection task Trainer
  • Advanced Venipuncture Arm - light (IV Arm), Task Trainer
  • Arterial Puncture, task Trainer

※ Procedure training lab
  • Bone Marrow Aspiration
  • Breast Cancer Task Trainer
  • Lumbar Puncture
  • Wound Care
  • Suture Pads (-5Set)
  • Stoma Care

※ OB/Gynae/Urology
  • Advanced Male Catheterisation Trainer
  • Advanced Female Catheterisation Trainer
  • Pelvic Examination task Trainer
  • Rectal Exam Task Trainer
  • Prostate Exam Task Trainer
  • Suprapubic Exam Task Trainer
  • Testicular Exam Task Trainer
Airway training lab
- Child ACLS Manikin
- Adult CPR Manikin
- Junior CPR Mankin
- Neonatal Resuscitation Manikin
- Adult airway management trainer
- NG Tube and Trach Care (Tracheostomy) Task Trainer
- Pediatric Intubation task Trainer

Harvey tee lab
Clinics

Simulation center comprise a 21 fully equipped Clinics to conduct an objective structured clinical examination (OSCE). In addition, clinics can be also used to perform session that requires use a clinical setting environment such as diagnosis, procedures history taken, clinical system examination, clinical learning skill, etc.

Clinics at simulation center include Examination tables, Medication trolley, Blood pressure apparatus, Otoscope and Ophthalmoscope
FACILITIES IN CSC-J

CSC-J is Utilizing its capability to enhance simulation sessions as part of COM-J curriculum. CSC-J’s capability is addressing the needs of each block of COM-J curriculum in a way that simulation can be effectively implemented and linked appropriately to student learning outcomes.

CSC-J is Integrating Simulation throughout the sequential blocks of the curriculum that are categorized in two phases.
COM - J CURRICULUM

• Medical Program (Phase II)

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• Clinical Clerkship Program (Phase III)

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Medical Program (Phase II)

3rd Year
Foundation Studies

Procedural skills:
- Height, weight and waist circumference
- Measurement of vital sign
- Infection control and hand washing
- Introduction to hospital
- Manual handling
- Scrubbing, gloving and gowning

Examination:
- GENERAL EXAMINATION
- Introduction to CVS
- CVS examination
- Abdominal examination
- Respiratory system examination

Manikins

SimMan 3G
- Physical Examination (Cardiovascular examination, Respiratory Examination and Abdominal Examination).
- BP measured manually by auscultation of Korotkoff sounds.
- Detect Pulses (Carotid, brachial, radial, femoral, popliteal, dorsalis pedis, and posterior tibialis pulses) synchronized with ECG.
- Normal and abnormal (Heart, Lung, and Bowel).

SimMan Essential
- Physical Examination (Cardiovascular examination, Respiratory Examination and Abdominal Examination).
- Normal and abnormal body sounds (Heart, Lung, and Bowel).
- BP measured manually by auscultation of Korotkoff sounds.
- Detect pulses (Carotid, brachial, radial, femoral, popliteal, dorsalis pedis, and posterior tibialis pulses) synchronized with ECG.

MegaCode Kelly
- Physical Examination (Cardiovascular examination, Respiratory Examination and Abdominal Examination).
- Bilateral carotid pulse.
- Measurement of Noninvasive Blood Pressure.
- Normal and abnormal Heart, Lung and Bowel sounds.
Task trainers

- Basic patient handling.
- Measurement of Noninvasive Blood Pressure.
- Physical Examination (Cardiovascular examination, Respiratory Examination and Abdominal Examination).
- Auscultation and recognition of normal and abnormal (Heart, Breath and Bowel sounds).

Nursing Anne
- Allow blood pressure training.
- Systolic, diastolic, heart rate and auscultator gap programmable.
- Representation of both systolic and diastolic pressures.

Blood Pressure Training Arm
- Comprehensive clinical cardiovascular examination.
- Normal and abnormal Heart sound (Auscultation at four primary cardiac areas: mitral, tricuspid, pulmonary and aortic).
- Demonstrate respiratory sound.

Cardiology patient simulator
- Comprehensive Respiratory Examination.
- Perform many different lung sounds with and without heart sound anteriorly and posteriorly (Lung sounds can be specific per lobe).

Lung sound auscultation trainer
- Allow training in the examination of the external acoustic meatus and tympanic membrane.
- Learn how to use otoscope.
- Learn how to differentiate different ear problem.
- Training in Ear wax and foreign body removal.

**Equipment**

- BP measured manually
- Can measure Vital Signs & blood pressure automatically
- For detail scrub technique, gloving & sterility
- Measure height, weight, and BMI
Musculoskeletal

Procedural skills:
- Asepsis and Basic Dressing
- Simple Splints and Plaster Immobilization

Examination:
- Examination of the Lower Back and Hips
- Examination of the Lower Limb:
  - Knee, Ankle and Foot
- Examination of the Lower Limb:
  - Knee, Ankle and Foot
  - The Upper Limb: Shoulder and Cervical and Thoracic Spine

Scenario:
- The Drug and /or Alcohol Examination

Manikins

- circulation:
- femoral, popliteal, carotid and brachial pulse
- cyanosis on fingers and toes
- central iv line insertion
- airway management:
- mechanical ventilation support
- simple and advanced airway (Surgical and needle cricothyrotomy)
- Bilateral chest tube insertion
- CPR
- Defibrillation and cardio version using live defibrillators
- Can be used for joint examination (fully articulated movement in the wrists, elbows, knees and ankles)

Task trainers

- Proper management of different stages of pressure ulcers.
Examination:
- Examination of Respiratory System
- Ear, Nose and Throat Examination
- Examination of a patient with COPD
- Examination of respiratory disease
- Examination of Ear
- Respiratory Examination – Revision

Procedural skills:
- Oxygen Therapy, pulse oximetry and airway devices

Respiratory Manikins

- The airways can be manipulated by a learner:
  - Head tilt/Chin lift
  - Jaw thrust w/articulated jaw
  - Cricoid pressure and manipulation
  - Suctioning (oral & nasopharyngeal)
  - Ventilation method:
  - Bag-mask ventilation
  - Laryngeal mask air way
  - Orotracheal intubation
  - Nasotracheal intubation
  - Transtracheal intubation
  - Endotracheal intubation
  - Breathing: Normal and abnormal breath sounds
  - Patient Monitor Features – Breathing
    - SpO2
    - Airway respiration rate (awRR)
    - End-tidal CO2 (etCO2)
    - End-tidal O2 (etO2)
    - inO2
    - pH
- The airways can be manipulated by a learner:
  - Head tilt/Chin lift
  - Jaw thrust w/articulated jaw
  - Cricoid pressure and manipulation
  - Suctioning (oral & nasopharyngeal)
  - Ventilation method:
    - Bag-mask ventilation
    - Laryngeal mask air way
    - Orotracheal intubation
    - Nasotracheal intubation
    - Transtracheal intubation
  - Breathing: Normal and abnormal breath sounds
  - Patient Monitor Features – Breathing
    - SpO2
    - Airway respiration rate (awRR)
    - End-tidal CO2 (etCO2)
    - End-tidal O2 (etO2)
    - inO2
    - pH

- Airway Management Skills
  - Obstructed airway
  - Endotracheal intubation
  - Nasotracheal intubation
  - Oropharyngeal airway insertion
  - Nasopharyngeal airway insertion
  - Bag Valve Mask
  - Light wand intubation
  - Laryngeal Mask Airway insertion
  - Laryngeal Tube Insertion
  - Combitube insertion
  - Trans-Tracheal Jet Ventilation
  - Suctioning techniques
  - Stomach auscultation to verify proper airway positioning
  - Auscultate normal and abnormal Lung sounds
- Oral nasal intubation
- Eye and ear irrigation
- Tracheostomy care and suctioning
- Oxygen delivery procedures
- Auscultation and recognition of normal and abnormal breath sounds.
Task trainers

NG Tube and Trach Care Trainer
- Tracheostomy care Tracheal suctioning
- Oropharyngeal and nasopharyngeal airway insertion and suctioning
- Endotracheal tube insertion securing and care

Blood Pressure Training Arm
- Basic airway management
- Advanced airway management

Cardiology patient simulator
- Allow training in the examination of the external acoustic meatus and tympanic membrane
- Learn how to use otoscope
- Learn how to Differentiate different ear problem
- Training in Ear wax and foreign body removal

Lung sound auscultation trainer
- Comprehensive Respiratory Examination
- Perform many different lung sounds with and without heart sound anteriorly and posteriorly (Lung sounds can be specific per lobe)
Hematology

Procedural skills:
- Intravenous Cannulation and Venipuncture
- Sharp and Needle Stick Injury

Examination:
- Physical Examination in Hematology (Assessment of spleen)
- Hematological Examination (Assessment of Lymph Node)

Task trainers

- Intravenous Cannulation and Venipuncture
- Venepuncture
- IV Cannulation
- Anatomically veins location
- Vacuum blood collection
Cardiovascular

**Examination:**
- Cardiovascular Examination (Pericardium)
- Cardiovascular Examination (Systematic Approach)
- Heart Sounds and Murmur
- Cardiovascular Examination (Peripheral circulation)

**Procedural skills:**
- Review of Blood Pressure Measurement
- CardioPulmonary Resuscitation (CPR)

**Manikins**

- Heart sounds.
- ECG rhythm monitoring (4-connector, 3-lead ECG).
- 12-lead ECG display.
- Pacing, Defibrillation and cardio version using live defibrillators.
- BP measured manually by auscultation of Korotkoff sounds.
- Pulses: (Carotid, brachial, radial, femoral, popliteal, dorsalis pedis, and posterior tibialis pulses synchronized with ECG).
- CPR.

- Extensive ECG library, pulses from 0-220.
- Heart sounds - for every anterior location.
- ECG rhythm monitoring (4-connector, 3-lead ECG).
- 12-lead ECG display.
- Pacing.
- Defibrillation and cardio version using live defibrillators.
- BP measured manually by auscultation of Korotkoff sounds.
- Pulses: (Carotid, brachial, radial, femoral, popliteal, dorsalis pedis, and posterior tibialis pulses synchronized with ECG).
- CPR.
- 3 – 4 lead ECG.
- Pacing with variable threshold, with or without capture capabilities (25 -360 joules).
- Pulses:
  - Bilateral carotid pulse.
  - Brachial and radial pulses.
  - Measurement of Noninvasive Blood Pressure.
- Heart sounds synchronized with ECG.

- Measurement of Noninvasive Blood Pressure.
- Auscultation and recognition of normal and abnormal heart sound.
Task trainers

- Comprehensive Cardiovascular clinical examination training.
- Normal and abnormal Heart sound (Auscultation at four primary cardiac area mitral, tricuspid, pulmonary, aortic).
- S1 and s2 auscultation in relation to synchronized ECG, arterial pulsation, JVP.
- Palpation of cardiac impulses (RT ventricle, LT ventricle, dilated left ventricle).
- Palpation of arterial pulsation (At carotid, radial, femoral arteries).
- Arrhythmia can be simulated by palpation.
- Monitoring screen: (ECG, JVP, CAROTID ARTERIAL PULSE, and APEX CARDIOGRAM).

- Perform many different heart sounds with and without lung sounds.
- Used in training of CPR skills using AED.
- Comprehensive Cardiovascular clinical examination training.
- Normal and abnormal Heart sound (Auscultation at four primary cardiac area mitral, tricuspid, pulmonary ,aortic).
- S1 and s2 auscultation in relation to synchronized ECG, arterial pulsation, JVP.
- Palpation of cardiac impulses (RT ventricle, LT ventricle, dilated left ventricle).
- Palpation of arterial pulsation (At carotid, radial, femoral arteries).
- Arrhythmia can be simulated by palpation.
- Monitoring screen: (ECG, JVP, CAROTID ARTERIAL PULSE, and APEX CARDIOGRAM).

- Allow blood pressure training.
- Systolic, diastolic, heart rate and auscultator gap are programmable.
- Representation of both systolic and diastolic pressures.
Medical Program (Phase II)

4th year
Manikins

- Mobilization technique and physical assessment of spinal cord injury.
- application of supportive equipment (splint, neck collar)
- Demonstrate different type of seizure (tonic, clonic, generalized tonic clonic)
- Administration of medication (e.g. Diazepam).
- Assessment of Level of Consciousness – Glasgow Coma Scale
- Demonstrate some physical sign:
  - Blinking eyelids.
  - Eyelids: open, closed or partially open.
  - Pupil dilation: constricted, dilated or in between.
Immobilization Techniques for Traumatic Spinal Cord Injury

- Perform physical assessment to judge the state of cord injury through advanced configurations.
- Perform proper techniques in immobilizing the patients with cord injury.
- Perform proper way of transferring patient (e.g., ground to spine board).
- Proper application of supportive equipment (e.g., splints, neck collar).
Task trainers

Lumbar puncture simulator
- Palpation of lumbar anatomy landmarks
- Lumbar Puncture and CSF Collection

Eye examination simulator
- Direct Ophthalmoscopy, Visual Fields and Acuity Examination
- Direct eye examination
- Identify different cases of eye abnormality.
Endocrine, Nutrition & RH

Procedural skills:
- Vaginal Examination & Pap Smear

Examination:
- Diabetic foot examination
- Pediatric examination

History:
- Pituitary and adrenal disorder
- Thyroid gland examination

Task trainers

Eye examination simulator
- Review of Ophthalmological Clinical Skills
- Direct eye examination
- Identify different cases of eye abnormality.

Clinical Female Pelvic Trainer
- Vaginal Examination & Pap Smear
- Recognition of perineal and pelvic anatomy including bony landmarks.
- Digital vaginal examination
- Cervical smear procedure (including use of speculum)

Intramuscular Injection Simulator
- Intramuscular & Subcutaneous Injections
- Intramuscular injections for Gluteus, Ventrogluteal, Vastus Lateralis muscles.
- Assessment of landmarks for proper techniques in intramuscular injections
Urology & Renal

Procedural skills:
- Urinary Catheterization
- Rectal Examination & External Genitalia Examination
- Prostate Examination

Task trainers

- Genital examination procedure
- Testicular examination
- Rectal examination of the prostate

- Techniques in rectal examination.
- Differentiation of rectal diseases of palpation
- Palpation of normal prostate or endocervix.
- Rectal palpation (i.e 7 cm depth)

- Advanced Catheterisation Trainer
- Correct handling of male and female anatomy
- Aseptic catheterisation technique
- Catheter placement for male and female.
- Fluid management.
- Withdrawal of catheter.
- Intermittent self-catheterisation (ISC) (used with the optional Self-Catheterisation Stand)
- Suprapubic catheter insertion and catheter management (using Suprapubic Bung)
- Advanced Catheterisation Trainer
- Correct handling of male and female anatomy
- Aseptic catheterisation technique
- Catheter placement for male and female.
- Fluid management.
- Withdrawal of catheter.
- Intermittent self-catheterisation (ISC) (used with the optional Self-Catheterisation Stand)
- Suprapubic catheter insertion and catheter management (using Suprapubic Bung)
Oncology

**Procedural skills:**
- Clinical assessment in women with Gynecological Cancer
- Clinical Assessment in People with Colorectal Cancer

**Examination:**
- Clinical Assessment in People with Lung Cancer
- Clinical Assessment in Women with Breast Cancer/Breast Examination

**Manikins**

- SimMan 3G
  - Managing Cancer Pain
  - Simulate patients who are in pain.
  - Performed Therapeutic Communications
  - Administration of Pain and Anti-Cancer Medications

- Nursing Anne
  - Clinical Assessment in Women with Breast Cancer / Breast Examination / Introduction to Mammograms
  - Recognition of breast disorders, their sizes and relative locations
  - With breast exam module, with unchangeable abnormalities.
Task trainers

- Managing Cancer Pain
- Examination and diagnosis of pathologies and abnormalities

- Clinical Assessment in Women with Breast Cancer / Breast Examination / Introduction to Mammograms
- Inspection and Palpation of Breast cancer.
Gastroenterology

Procedural skills:
- Insertion of a Nasogastric Tube
  Using a Mannequin
- Administration of Intravenous
  Injections & Fluids
- Stoma Care

Clinical Examination skills:
- Gastrointestinal Examination

Manikins

SimMan 3G
- Perform abdominal Examination
- IV infusion into peripheral veins (Right Arm)
- Bowel sounds
- Management UGb

SimMan Essential
- Perform abdominal Examination
- IV infusion into peripheral veins (Right Arm)
- Bowel sounds

MegaCode Kelly
- Perform abdominal Examination
- IV infusion into peripheral veins (forearm, antecubital fossa and dorsum of the hand)
- Bowel sounds
- NG Tube insertion, care medication administration and removal, Lavage/Gavage
- IV care and management
- Ostomy irrigation and care
Clinical Clerkship Program (Phase III)

5th Year
**Manikins**

**SimMan 3G**
- Circulation:
  - Extensive ECG library, pulses from 0-220.
  - ECG rhythm monitoring (4-connector, 3-lead ECG).
  - 12-lead ECG display.
- Vascular Access:
  - IV access (right arm).
- Eyes:
  - Blinking eyelids.
  - Eyelids: open, closed or partially open.
  - Eyelids can be opened for examination by the learner.
- Pupil dilation: constricted, dilated or in between.
- Pupillary accommodation.
- Synchrony / asynchrony.
- Normal and sluggish speed of response.

**SimMan Essential**
- Circulation:
  - Extensive ECG library, pulses from 0-220.
  - ECG rhythm monitoring (4-connector, 3-lead ECG).
  - 12-lead ECG display.
- Vascular Access:
  - IV access (right arm).
- Eyes:
  - Blinking eyelids.
  - Eyelids: open, closed or partially open.
  - Eyelids can be opened for examination by the learner.
- Set of interchangeable pupils available.

**ER session scenarios:**
- Patient presented with decrease level of consciousness
- Patient presented with hypotension
- Patient presented with chest pain
- Patient presented with unknown ingestion

**Procedural skills:**
- ECG, SPIROMETRY, RETINAL EYE EXAM
- VENIPUNCTURE AND ARTERIAL BLOOD GAS SAMPLING TECHNIQUE
- LUMBER PUNCTURE

**History:**
- Pituitary and adrenal disorder
- Thyroid gland examination
- Heart sounds synchronized with ECG.
- Urinary Catheterization.

- IV care and management.
- Catheterization skills.
**Task trainers**

- Aseptic Urethral catheterization technique.
- Suprapubic catheter insertion and catheter management.

- Aseptic Urethral catheterization technique.
- Suprapubic catheter insertion and catheter management.

- Venepuncture: (Collect venous blood sample by needle and syringe, Collect venous blood sample by an evacuated closed-tube system).
- IV Cannulation.

- Artery puncture practices for arterial blood collection procedures.
- S1 and s2 auscultation in relation to synchronized ECG.
- ECG Monitoring screen.

- Allow examination of the fundus using ophthalmoscope.
- Training in identification of common eye disease.

- Training of Lumber puncture procedure (CSF collection, measurement of CSF pressure).

- The suprapubic catheterizations model allows the practitioner to feel the normal pressures exerted by the abdominal wall on catheterizations.
- Allows the practitioner to understand the average length of catheter required to be inserted in order to drain the bladder.
Equipment

Spirometer

Dinamap
**Surgery I**

**Procedural skills:**
- Acute Abdomen (Assessment of the abdomen)
- Breast Examination
- Intravenous Line Insertion
- Neurosurgery (Neurological Assessment)
- Suturing
- Thoracic (Chest Tube Insertion)
- Trauma Patient (Intubation)

**Manikins**

**SimMan 3G & Essential**
- AIRWAY MANAGEMENT:
  - Basic airway maneuvers (Head tilt/Chin lift Jaw thrust).
  - Suctioning (oral & nasopharyngeal).
  - Ventilation method:
    - Basic ventilation (Bag-mask ventilation).
    - Advance ventilation (Laryngeal mask airway, Orotracheal, Nasotracheal intubation).
  - Endotracheal intubation.
  - Surgical airway management (tracheostomy, cricothyrotomy)
  - Chest tube insertion
  - Management of tension pneumothorax by needle decompression and chest tube insertion
  - CPR.

**Megacode Kelly**
- Airway Management Skills:
  - Basic airway management (Bag Valve Mask)
  - Advanced airway management (Endotracheal intubation Nasotracheal intubation).
  - Surgical airway management (cricothyrotomy).
  - Suctioning techniques.
  - Chest Tube Insertion (Advanced version only):
    - Management of pneumothorax
- Airway Management Skills: pediatrics size
- Advanced airway management (intubation).
- Basic airway management (Bag/Valve Mask Ventilation).

- Tracheostomy care and suctioning.
- Oral nasal intubation.
Task trainers

- Tracheostomy care Tracheal suctioning.
- NG tube insertion and removal NG tube.
- NG tube irrigation and monitoring.
- Feeding tube insertion and removal.
- Gastric lavage and gavage.
- Oropharyngeal and nasopharyngeal airway insertion and suctioning.
- Endotracheal tube insertion securing and care.
- Used in training of CPR skills using AE.

- Venepuncture.
- IV Cannulation. Iv effusion (blood transfusion).

- Artery puncture practices for arterial blood collection procedures.
- Arterial catheterization for IABP measurement
- proper physical examination of male genital tract
- Aseptic catheterization technique.
- Catheter placement.
- Catheter insertion for measuring fluid output
- Withdrawal of catheter.
- Suprapubic catheter insertion and catheter management.
- Intermittent self-catheterization (ISC) when using the optional Self Catheterization.

- proper physical examination of female genital tract
- Aseptic catheterization technique.
- Catheter placement
- Catheter insertion for measuring fluid output
- Withdrawal of catheter.
- Suprapubic catheter insertion and catheter management.
- Intermittent self-catheterization (ISC) when using the optional Self Catheterization.

- Techniques:
  - Making an incision.
  - Application of skin adhesives (glue, staples)
  - Basic suturing techniques (continuous, interrupted)
  - Advanced suturing techniques (subcuticle, multiple layer suturing, intra-abdominal anastomosis)
- Per rectal examination
- Differentiate rectal tumor and polyp by palpation
- Palpation of normal prostate and endocervix.

- Training of prostate examination.
- learn to distinguish clinically between the benign and malignant condition.

- Training of Lumber puncture procedure (CSF collection, measurement of CSF pressure).
- Epidural block.

- Proper management of different stages of pressure ulcers.
Manikins

- TRAIN FOR NEONATAL RESUSCITATION & NEONATAL CARE SIMULATION
- APGAR score, neonatal examination
- Handle the neonate confidently and competently

- Closed chest compressions
- CPR
- Airway Management Skills:
  - Oral intubation
  - Nasal intubation
  - Digital intubation
  - Bag/Valve Mask Ventilation
- IV Drug Administration:
  - IV insertion into the peripheral veins of forearm, hand and antecubital area (Accessible veins include: median, basilic and cephalic)
  - Intraosseous infusion at both Tibial Tuberosity and Medial Malleolus sites
- Multi-Sounds Auscultation and Recognition Skills:
  - Seven auscultation sites for auscultation and recognition of heart, breath and bowel sounds
- Used in training of CPR skills
- Used in training of infant CPR skills
Task trainers

- Oral intubation
- Nasal intubation
- Digital intubation
- Bag/Valve Mask
- Oropharyngeal airway insertion
- Nasopharyngeal airway insertion

- Venepuncture
- IV Cannulation
- IV effusion (blood transfusion)

- Training of Lumber puncture procedure (CSF collection, measurement of CSF pressure)
- Allow training in the examination of the external acoustic meatus and tympanic membrane
- Learn how to use otoscope
- Learn how to Differentiate different ear problem
- Training in Ear wax and foreign body removal

- For training in infant intraosseous techniques
- Bone marrow aspiration
Equipment

- Sphygmomanometer
  - Measure blood pressure (including use of non-electronic sphygmomanometer) and plot on chart for infant and older child

- Dinamap
  - Measure pulse oximetry and thermometer

- Peak Flow Meter
  - A peak flow meter is a portable device that measures airflow, or peak expiratory flow rate (PEFR). It can be used to:
    - Determine the severity of your asthma attack
    - Check your response to treatment during an acute asthma episode
    - Monitor progress in treatment of chronic asthma and provide information for any changes in your therapy
    - Detect worsening lung function and avoid a possible serious asthma flare-up

- Tape, weighing scale, charts
  - Measure and plot on chart head circumference, weight and height for an infant, older child
Clinical Clerkship Program (Phase III)

6th year
Obstetrics & Gynecology

Procedural skills:
- EPIDURAL PROCEDURES
- C section using real surgical instrument
- EPISIOTOMY REPAIR
- Vaginal examination and pap smear

Examination:
- Examination of pregnant lady and fetal heart sound
- Digital rectal examination

Manikins

- EPIDURAL PROCEDURES
- Simulate different scenarios of normal and abnormal virginal delivery
- C section using real surgical instrument
- Simulate an obstructed labor, shoulder dystocia and allow Practice management techniques and maneuvers such as McRoberts, Woods screw, “hands and knees”,
- EPISIOTOMY REPAIR
- Post-partum hemorrhage management
- Perinatal monitor:
  - Baseline fetal heart rate
  - Fetal heart rate variability
- Accelerations
- Decelerations
- EFM and FSE heart tones
- Uterine contractions frequency and intensity
- Trace history w/ print out capability
- All fetal vital signs are fully programmable
## Task trainers

<table>
<thead>
<tr>
<th>Maternity model type 2</th>
<th>Allow practicing and teaching the four Leopold’s Maneuvers and fetal heart-rate monitoring</th>
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</table>
| Clinical Female Pelvic Trainer | Recognition of perineal and pelvic anatomy including bony landmarks  
|                        | Digital vaginal examination and speculum examination  
|                        | Bi-manual examination  
|                        | Cervical smear procedure (including use of speculum)  
|                        | Pap smear  
|                        | Digital rectal examination  
|                        | Also can demonstrate different pathologies and abnormalities like  
|                        | Large Fibroid - Nulliparous Ectropion Cervix  
|                        | Small Fibroid - Nulliparous Polyp Cervix  
|                        | Ovarian Cyst - Multiparous Cervix  
| Advanced Venepuncture Arm | IV effusion |
- NG tube insertion and removal
- NG tube irrigation and monitoring
- Feeding tube insertion and removal
- Gastric lavage andavage

- Instrumentation and probe manipulation
- Basics of abdominal sonography:
  - Cross sections and sonographic anatomy
  - Sonographic demonstration of each individual organ
  - Localization of hepatic Couinaud’s segments

- Practice stoma care and self-care training
Manikins

SimMan 3G
- Blinking eyelids.
- Eyelids: open, closed or partially open.
- Eyelids can be opened for examination by the learner.
- Pupil dilation: constricted, dilated or in between.
- Pupillary accommodation.
- Synchrony / asynchrony.
- Normal and sluggish speed of response.

SimMan Essential
- Blinking eyelids.
- Eyelids: open, closed or partially open.
- Eyelids can be opened for examination by the learner.
- Set of interchangeable pupils available.
Task trainers

- Allow training in the examination of the external acoustic meatus and tympanic membrane.
- Learn how to use otoscope.
- Learn how to Differentiate different ear problem.
- Training in Ear wax and foreign body removal.

Eye examination simulator

- Allow examination of the fundus using ophthalmoscope.
- Training in identification of common eye disease.

Equipment

Ophthalmoscope

Otoscope