Medical Knowledge: Demonstrates knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences; applies this knowledge to patient care; demonstrates an investigatory and analytic thinking approach to clinical situations; and demonstrates a commitment to lifelong learning.

Knowledge:
- Demonstrate an understanding of the anatomy, physiology, and pathophysiology of cardiothoracic conditions pertinent to general surgery.
- Exhibit knowledge of how these change with age and how those changes alter one’s conditions.
- Demonstrate ability to formulate and implement a diagnostic and treatment plan for patients with cardiothoracic problems who are to be managed by general surgery.
- Demonstrate familiarity with surgical literature and extensive areas of basic surgical disease in thoracic surgery.
- Must relate basic medical knowledge to patient care. Residents must critically evaluate and demonstrate knowledge of pertinent scientific information.
- Demonstrate the capacity to integrate surgical continuity of care principles into the total care plan for all surgical patients.
- Incorporate the knowledge of ethical, legal, economic, and/or social factors into the activities of the entire surgical team for all components of surgical care.

Patient Care: Demonstrate patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

Compassionate Patient Care:
- Demonstrates caring and respectful behaviors when interacting with patients and/or their families.
- Incorporates the patient preferences in making decisions about diagnostic and therapeutic interventions.
- Develops, discusses with attending and executes patient care plans.

Appropriate Patient Care:
- Gathers essential and accurate information about patients.
- Evaluates patients with complex surgical indications and presents to attending.
- Assist in development of patient management plans and assist in carrying out plan.
- Demonstrate knowledge of the indications and contraindications for various medications used in the preparation and performance of procedures.
- Participates in coordinating the overall care of patients for the team of residents and students.

Effective Treatment and Health Promotion:
- Performs competently, with supervision, medical and invasive procedures.
- Provides health care services aimed at preventing health problems and maintaining health
- Works with health care professionals, including those from other disciplines, to provide Patient-focused care.

Technical Skills in Patient Care:
- Demonstrates knowledge, psychomotor skills and judgment related to his/her role in the performance of operative surgical procedures.
- Demonstrates manual dexterity appropriate for level of training.
- Arrives in the OR prepared for the cognitive components of his/her role in individual operative surgical procedures.
- Demonstrates the ability to proceed through various steps of operative procedures in a manner that is consistent with the flow of the operation.
- Demonstrate competence in surgical cases
• Treat medical conditions associated with cardiothoracic surgical procedures.
• Understand bypass pump connections and concepts
• Demonstrates an understanding of the benefits and limitations of operative surgical techniques.
• Assist attending staff with complex surgical procedures.

Practice-Based Learning and Improvement: Investigates and evaluates patient care practices, appraises and assimilates scientific evidence, and improves his/her patient care practices.

Investigates And Evaluates Patient Care Practices:
• Analyzes practice experience using a systematic methodology.
• Obtains and uses information about their population of patients and the larger population from which patients are drawn.

Appraises and Assimilates Scientific Evidence Relevant To Patient Care:
• Locates, appraises, and assimilates evidence from scientific studies related to their Patients’ health problems.
• Applies knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness.
• Performs practice-based improvement activities using a systematic methodology.
• Uses information technology to manage information, access on-line medical information; and support his/her own education.
• Exhibit and recognize the importance of lifelong learning in surgical practice.

Improves Patient Care Practices:
• Demonstrates the ability to analyze personal practice outcomes to improve patient care.
• Performs practice-based improvement activities using a systematic methodology.
• Uses information technology to manage information, access on-line medical information; and support his/her own education.

Interpersonal and Communication Skills: Demonstrate interpersonal and communication skills that result in effective information exchange and collaboration with patients, their families, and other health professionals.
• Demonstrates skill and sensitivity for appropriate counseling and educating patients and their families in a variety of clinical situations.
• Creates and sustains therapeutic and ethically sound relationships with patients and families.
• Works effectively with other professional groups.
• Effectively and promptly documents practice activities.
• Presents all patients and conference material in a concise, organized, chronologic, logical and knowledgeable manner.
• Utilizes input from all collaborative interactions with all personnel contributing to the surgical patient care.

Professionalism: Demonstrate a commitment to carrying out professional responsibilities; adhere to ethical principles, and sensitivity to a diverse patient population.
• Demonstrates respect, compassion and integrity; a responsiveness to the needs of patients and society that supercedes self-interest; accountability to patients, society and the profession; and a commitment to excellence and on-going professional development.
• Demonstrates a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.
• Demonstrates sensitivity and responsiveness to patients’ culture, age, gender, and disabilities.
• Exhibits professionalism through timely completion of required administrative responsibilities (evaluations, recording hours, chart documentation, medical record dictations, etc.).
• Maintain positive relationships.
• Demonstrate accountability for actions and decisions.
Systems-Based Practice: *Demonstrates an awareness of and responsiveness to the larger context and system of health care and effectively calls on system resources to provide care that is of optimal value.*

Awareness and Responsiveness to the Health Care System:
- Understands how patient care and other professional practices affect other health care professionals, the health care organization, and the larger society. Understand how these elements of the system affect their own practice.
- Knows how types of medical practice and delivery systems differ from one another, including methods and controlling health care costs and allocating resources.

Utilization of System Resources:
- Practices cost-effective health care and resource allocation that does not compromise quality of care.
- Advocates for quality patient care and assist patients in dealing with system complexities.
- Partner with health care managers and health care provides to assess, coordinate, and improve health care and understands how these activities can affect system performance.

Procedure Benchmarks: *Residents at the PGY1*
- Perform bronchoscopy, esophagoscopy, nasotracheal, and orotracheal intubation, including double lumen tubes with supervision
- Thoracentesis, tube thoracostomy
- Insert Swan-Ganz catheter and perform cardiovascular monitoring
- Closure of vein graft harvest sites and assist in closure of median sternotomy

Assessment: *Residents will be assessed throughout the program. The results will be utilized to improve resident performance. Residents will be evaluated on competence in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems based practices. The process of using assessment results to achieve progressive improvement in residents’ competence and performance, and direct experience for progressive responsibilities for patient management.*

1) PATIENT CARE
   a) Weekly basic science conference
   b) New Innovations evaluations by Faculty (including mid-rotation feedback sessions)

2) MEDICAL KNOWLEDGE
   a) Annual ABSITE
   b) Written evaluation by faculty (including mid-rotation feedback sessions)

3) PRACTICE-BASED LEARNING
   a) Faculty evaluation

4) PROFESSIONALISM
   a) 360 evaluations
   b) By Faculty (including mid-rotation feedback sessions)
   c) By other resident staff members

5) INTERPERSONAL RELATIONSHIPS & COMMUNICATION
   a) 360 evaluations
   b) By Faculty (including mid-rotation feedback sessions)
6) SYSTEMS-BASED PRACTICE
   a) Combined cardiothoracic surgery /cardiology conference