Overall Educational Goals and Objectives of The Program:
[Excerpted from the Department of Surgery Curriculum and Resident Manual]

The overall goal of the program is to train surgeons for the practice of General Surgery at the high level of performance expected of a board-certified specialist in terms of assessable skills and competencies.
The training of surgeons encompasses education in basic science, training in cognitive and technical skills, development of clinical knowledge and maturity, and the acquisition of sound surgical judgment.

The competencies required of graduates from the Sinai Surgery Program include:
1. **Patient care**, which is compassionate, appropriate and effective for the treatment of “surgical” health problems and the promotion of health. Surgical residents are expected to:
   - Communicate effectively and demonstrate caring and respectful behavior when interacting with patients and their families.
   - Gather essential and accurate information about their patients.
   - Perform a complete and accurate medical history and physical examination.
   - Order, follow up on and interpret logical and cost effective diagnostic tests.
   - Make an informed and logical diagnosis;
   - Based on this diagnosis and other patient information make evidence-based treatment decisions.
   - Counsel and educate patients on disease-related and preventive health issues and services
   Competency in patient care includes the demonstration of a sound understanding of basic science and clinical knowledge on the pathophysiology and treatment of surgical illnesses. Competency also requires demonstration of the ability to use the principles of scientific inquiry and interpretation of surgical literature.

2. **Medical knowledge**: Residents must demonstrate adequate knowledge of established and evolving biomedical, clinical and cognate (i.e. epidemiological and socio-behavioral) sciences, and the application of this knowledge to patient care.
   Surgical residents must be able to demonstrate an investigative and analytic thinking approach to all clinical situations and apply their basic and clinical science knowledge to the practice of surgery.

3. Residents must develop **interpersonal and communication skills** that result in effective information exchange and teaming with patients, their families and other health professionals. Surgical residents are expected to:
Create an ethically sound and therapeutically beneficial relationship with their patients.

Use effective listening and questioning skills to elicit essential information, and provide that information effectively to other individuals involved in the patient’s care.

Communicate with patients and their families in an easily understood and culture-sensitive language.

Work effectively with others as a member and/or leader of a health care team or other professional group.

Demonstrate the ability to serve as a consultant to other physicians and health care professionals.

Consistently demonstrate sensitivity to issues arising from differences in age, gender and culture.

Maintain comprehensive, timely and legible medical records.

4. Residents must demonstrate **professionalism**, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles and sensibility to a diverse patient population. Surgical residents are expected to:

- Demonstrate respect, compassion and integrity; a responsiveness to the needs of patients, families and society that supersedes self-interest; accountability to patients, society and the profession; and a commitment to excellence and on-going professional development.

- Demonstrate a commitment to ethical principles pertaining to the provision or withholding of clinical care, confidentiality of patient infraction, informed consent and business practices.

- Be respectful and altruistic.

- Demonstrate a commitment to the continuity of patient care.

- Demonstrate sensitivity and responsiveness to issues arising from differences in age, gender, culture and disabilities of their patients and other health care professionals.

5. Residents must demonstrate **practice-based learning and improvement** that involves investigation and evaluation of the resident’s own practices and abilities to assimilate and effectively use scientific evidence toward improvement of patient care. Surgical residents are expected to:

- Analyze and critique their own personal practice outcomes for needed improvements.

- Locate, appraise and assimilate scientific evidence related to their patients' health problems. Apply current research and statistical methods to their practice.

- Review practice patterns and ensure continuous improvement in patient care.

- Use information technology to improve own knowledge and technical skills to ultimately provide better patient care.

- Facilitate the learning of students and other health care professionals.

6. **Systems-based practice**: The resident must demonstrate awareness of and responsiveness to the
larger context and system of health care and the ability to effectively call on system resources to provide optimal care. The surgical resident is expected to:

- Be responsive to systems needs.
- Understand how their patient care and other professional practices affect other health care providers, the health care organization and society at large; how those elements of the system affect their own practice.
- Demonstrate knowledge of different health care practice and delivery systems; how these systems differ from each other; be cognizant of methods for cost control and allocation of resources.
- Demonstrate responsibility to the individual, practice and overall system.
- Understand the concepts of limitation of resources and rationing of care.
- Practice cost-effective health care and resource allocation that does not compromise the quality of care.
- Participate in data collection and systems of care development in the context of cost efficiency, resource maximization and human error prevention, as they apply to the practice of surgery.
- Advocate for patients within the health care system and assist patients in dealing with systems complexities.
- Advocate for quality of care.
- Know how to partner with health care managers and health care providers to assess, coordinate and improve health care, and how these activities can affect systems performance.

The achievement of these competencies is assessed by a number of evaluation tools (see PART 2: SECTION 18. EVALUATION, pages 532 - 543)

To train surgeons for the practice of General Surgery, the program:

1. Provides education in the fundamentals of basic science as applied to clinical surgery.
2. Provides extensive experience in the pre-operative, operative and post-operative care of patients in all areas that constitute the principal components of General Surgery, namely:
   - Head and Neck
   - Breast
   - Skin and Soft Tissue
   - Alimentary Tract
   - Abdomen
   - Vascular System
   - Endocrinology
   - Trauma and Emergency Surgery
   - Surgical Critical Care
3. Provides adequate and broad-based experience in the pre-operative, operative and post-operative care of patients in the secondary components of General Surgery, namely:
   - Cardiothoracic surgery
   - Pediatric Surgery
   - Plastic Surgery
   - Transplant Surgery

4. Provides adequate and broad-based experience in the pre-operative, operative and post-operative care of patients in the tertiary components of General Surgery, namely:
   - Urology
   - Gynecology
   - Neurosurgery
   - Orthopedics
   - Burn Surgery
   - Anesthesiology

5. Provides adequate experience in a variety of rigid and flexible endoscopic procedures, namely:
   - Laryngoscopy
   - Bronchoscopy
   - Esophagoscopy
   - Gastroscopy
   - Colonoscopy
   - Diagnostic and Therapeutic Laparoscopy
   - Choledochoscopy

6. Provides adequate experience in Minimally Invasive Surgery.

7. Provides an opportunity to manage, on the surgical service, patients who may or may not require surgical intervention (including trauma patients), to acquire skill in surgical judgment and non-operative management.

8. Provides teaching in critical thinking, data analysis, design of experiments and critical appraisal of reported evidence that relates to Surgery and the care of patients with surgical diseases.

9. Encourages participation, by the residents, in clinical research.

10. Assists residents in achieving professional leadership and management skills.

11. Fosters continuing education to promote life-long individual initiative and creative scholarship.

At the completion the resident should be able to:

1. Manage surgical disorders based on a thorough knowledge of basic and clinical science.
2. Utilize appropriate skill in the surgical techniques required of a qualified surgeon.
3. Use critical thinking when making decisions affecting the life of a patient and the patient's family.
4. Collaborate effectively with colleagues and other health care professionals.
5. Teach and share knowledge with colleagues, students and other health care providers.
6. Make sound ethical and legal judgments and decisions appropriate for a qualified surgeon.
7. Respect the personal, cultural and religious needs of patients, their families and health care providers and provide care in accordance with those needs.
8. Be committed to scholarly pursuit through the conduct of evaluation and research.
9. Provide cost-effective care to patients and their families.
10. Teach patients and families about their health care needs.
11. Value life-long learning as necessary prerequisite to maintaining surgical knowledge.

Educational Goals and Objectives at Each Level of Training:

Surgical residents are involved in adult learning as well as the care of patients at all levels of training with progressively increasing responsibilities under faculty supervision (see PART 2: SECTION 13. SUPERVISION, pages 464 - 473).

The overall goals and objectives for the program have been discussed above. The specific and PGY-level appropriate goals and objectives for the individual specialty rotations are discussed below (pages 259 - 445).

The general goals and objectives for the residents at each level of training are as follows:

PGY 1:

- Development of basic knowledge of the principal components of General Surgery.
- Development in the surgical specialty areas of Neurosurgery, Cardiac Surgery, Orthopedics and Urology as outlined in the specific goals and objectives statements for these rotations.
- Development of knowledge in the area of pre-operative (medical and anesthesiologic) evaluation of surgical patients, as outlined in the goals and objectives statement for the PreOp-/Anesthesia rotation.
- Develop knowledge in the pre- and post-operative management of General Surgery and specialty patients under their care, including pain management; fluid, electrolyte and nutritional management; routine measures of adverse incident prevention, including DVT and peptic ulcer prophylaxis, pneumonia, UTI and wound infection prophylaxis, etc.
- Develop fundamental knowledge in the performance of (surgical) history taking and physical examination.
- Development of efficiency in collection and documentation of clinical data (vital signs, laboratory and diagnostic test results), using multiple information sources, for the purposes of day to day patient
management.

- Development of efficiency and consistency in the initiation of appropriate and safe diagnostic and therapeutic orders and ensure that these orders are carried out in a time appropriate manner.

- Development of skills to present patient’s history and other information on rounds, in teaching conferences and other appropriate venues in a concise, precise and complete manner.

- Practice of basic surgical skills, techniques and instrument recognition, as well as bedside procedures under appropriate supervision, including:
  - Name recognition and handling of common surgical instruments
  - Incision, suturing and ligation of tissues
  - Bedside procedures: central venous catheter placement, including pulmonary artery catheter, arterial catheter placement, tube thoracostomy, thoracentesis, paracentesis, lumbar puncture, emergency cricothyroidotomy / tracheostomy, emergency thoracotomy (trauma), incision and drainage of simple abscesses including peri-anal in non-diabetics, repair of superficial lacerations, wound debrideament and wound closure, insertion of Foley catheters, insertion of naso-enteric tubes, superficial excisional (skin) biopsy, suture removal and complex dressing changes
  - Participate in training- and skill-level appropriate operative cases (i.e. inguinal hernia, breast biopsy, open appendectomy, open cholecystectomy, etc.)

PGY 2:

- The educational goal for residents at this level is the further development of knowledge in the principal components of General Surgery to a more advanced degree than the PGY 1 resident. The PGY 2 residents are expected to develop fundamental knowledge and skills in the management of critically ill surgical patients. In addition the PGY 2 residents are expected to develop further knowledge in the specialty areas of Obstetrics and Gynecology, Gynecologic Oncology and Burn Surgery.

- Expansion of knowledge and skills outlined for the PGY1 resident, including proficiency in outlined bedside procedures, use of common surgical instruments and basic surgical techniques.

- Development of progressive proficiencies for basic independent decision-making.

- Development of an active role in the teaching and evaluation of the Interns, medical and other professional students rotating on the services at Sinai or its affiliated institutions.

- Participation in training- and skill-level appropriate operative cases (i.e. non-complicated open and laparoscopic abdominal cases, mastectomy, basic vascular cases, etc.) and ICU related operative procedures (i.e. tracheostomy, bronchoscopy, esophago-gastroscopy and feeding tube placement, etc.).

PGY 3:

- The educational goal for the residents at the PGY 3 level is to develop mastery of the goals and objectives outlined for the PGY 1 and 2 level, as well as to expand his/her knowledge in the principal components of General Surgery to a more advanced degree. In addition, the PGY 3 resident is
expected to develop fundamental knowledge in the specialties of Trauma Surgery, Pediatric Surgery, Gastroenterology, Surgical Endoscopy and Soft Tissue Surgery, as outlined in the rotation-specific goals and objectives statements.

- Ability to perform the bedside procedures outlined above without direct (bedside) supervision by a senior resident or attending, except in more difficult circumstances.
- Demonstration of proficiencies for more complex independent decision-making.
- Active role in the teaching and evaluation of the interns and junior residents, mid-level providers, medical and other professional students rotating on the services at Sinai or its affiliated institutions.
- Demonstration of proficiency in the management of critically ill patients and act as primary resource for the ICU resident when the Intensivist is not immediately available.
- Expansion of his/her operative knowledge and skills to more complicated open and laparoscopic abdominal cases, non-complicated thoracic and pediatric surgery cases, non-complicated endocrine vascular-, transplant- and trauma surgeries.
- Development of skills to serve in the role of primary surgical consultant for the Emergency Room and inpatient services.

**PGY 4:**

- The educational goal for residents at the PGY 4 level is the further development of knowledge in the principal components of General Surgery to a more advanced degree than the PGY 3 level. In addition, the PGY 4 resident is expected to develop fundamental knowledge in the specialties of Plastic and Head and Neck Surgery and Vascular Surgery as outlined by the rotation-specific goals and objectives statements.
- Demonstrate proficiencies for more complex independent decision-making.
- Play an active role in the teaching and evaluation of the interns and junior and mid-level residents, mid-level providers, medical and other professional students rotating on the services at Sinai or its affiliated institutions.
- Develop proficiency in the management of complex surgical and specialty patients, and act as primary resource for the ICU resident when the Intensivist is not immediately available.
- Expand his/her operative knowledge and skills to more complicated open and minimally invasive operative cases, in all principal components of General Surgery.
- Develop progressive skills in conflict and problem resolution and administrative work related to the Department of Surgery at a multi-specialty, multi-provider institution.

**PGY 5:**

- The chief resident is expected to have mastered the skills and responsibilities of the previous PGY
levels. The educational goal for residents at this level involves the critical analysis and synthesis of his/her knowledge development in the principal components of General Surgery and the continued development of knowledge in all subspecialty areas outlined for previous PGY levels. The chief resident is in charge of the pre- and post-operative management of all patients on their team. The chief resident will spend the entire year at Sinai Hospital, rotating between the two surgical services. At the end of the year the chief resident is expected to meet all requirements of the American Board of Surgery to be able to successfully complete the Qualifying Examination.

- Develop progressive experience in the administrative aspects of surgery, such as scheduling resident involvement in the operating room and clinics, mediating situations involving suboptimal communication, establishing resource and care priorities in emergencies, promoting the educational program and representing the Department of Surgery in the hospital at large.

- The chief resident (at the end of the year) is expected to have attained a sufficiently high level of knowledge in the basic and clinical sciences related to Surgery, diagnostic and manipulative/technical operative skills, surgical judgment and independent decision-making, and interpersonal and communication skills, to be considered fully prepared for independent responsibility as a specialist in Surgery.