The Icahn School of Medicine at Mount Sinai Student Competencies:

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**Competency 1: Patient Care**

Graduates will reliably obtain and interpret clinical data, propose a prioritized management plan, and communicate effectively with patients, families, colleagues and staff.

- **History taking**
  - Establish a safe and comfortable environment to allow for a patient to provide a confidential history.
  - Conduct an interview that is appropriate to the patient’s age and the clinical venue.
  - Conduct a comprehensive interview that is organized and efficient and includes the appropriate elements of the history.
  - Incorporate additional sources of information, including the medical record and perspectives of caregivers.

- **Physical examination**
  - Establish a safe and comfortable environment for the physical examination, respecting the patient’s privacy and dignity and counseling the patient about what to expect during the exam.
  - Conduct an exam that is appropriate to the patient’s chronological and developmental age and the clinical venue.
  - Conduct a comprehensive physical exam that is organized, efficient and technically correct, focusing on organ systems related to the chief complaint.
• Procedural skills
  o Describe indications for and potential complications of basic procedures
  o Demonstrate correct techniques for basic procedures with attention to universal precautions, sterile technique and patient comfort.
  o Describe indications for and potential complications of commonly performed advanced procedures.

• Clinical reasoning
  o Integrate and interpret data from the medical history, patient records, physical exam, and diagnostic procedures to generate a prioritized patient problem list and differential diagnosis.
  o Formulate plausible explanations for clinical phenomena using probabilistic deduction and application of basic science principles, epidemiology and biostatistics.
  o Recognize patients who require emergent assessment and management.
  o Recognize when screening for disease is appropriate.

• Medical decision making
  o Initiate diagnostic and management plans with attention to medical evidence, acuity of illness, risk-benefit estimations, patient and/or family preferences, consideration of cost and availability of therapies.
  o Recognize when consultation is required.
  o Plan for safe transitions across the care continuum, with attention to health literacy, patient safety, and support systems.
  o Apply the principles of evidence-based medicine to critique and utilize scientific literature and in clinical decision making.

• Communication skills
  o Communicate information honestly, accurately, reliably, empathically, and in a culturally sensitive manner with patients and their families and/or caregivers.
  o Elicit and respond to patient values, preferences and expectations for health and health care.
  o Communicate effectively with members of the interprofessional health care team.
  o Listen actively to patients, their families and/or caregivers, and all members of the health care team.
  o Effectively educate and counsel patients about plans of care, health promotion and disease prevention, chronic disease management and end-of-life care.
  o Record clinical information and reasoning in the medical record clearly, reliably and accurately.

Competency 2: Scientific and Medical Knowledge

Graduates will apply knowledge and analytic abilities to engage in problem solving at multiple levels, from the individual patient to the health care system.
• Organ structure and function
  o Apply the principles of anatomy, histology and physiology to describe the interrelated functions of organs and organ systems.
  o Apply the principles of molecular and cellular biology to describe the basis of tissue specificity.
  o Apply knowledge of major biochemical pathways to describe normal cell function and metabolism.
  o Describe the changes that occur to organs and organ systems in development and aging.

• Characteristics and mechanisms of disease
  o Explain mechanisms of disease using the principles of molecular biology and genetics.
  o Describe the structural changes and physiologic alterations that underlie disease states.
  o Explain how microorganisms interact with the host at cellular, tissue and systems levels to promote homeostasis or cause disease.
  o Describe the incidence of, prevalence of, and risk factors for major diseases.
  o Recognize and interpret the clinical manifestations of major diseases.
  o Develop prognoses based on the natural history of disease and patient presentation.
  o Explain how genomics is used to predict disease vulnerability and inform management.

• Healing and therapeutics
  o Describe the role of the immune system in preventing and responding to disease.
  o Recognize reparative responses to cell and tissue injury.
  o Apply the principles of pharmacokinetics and pharmacodynamics to describe the mechanisms of action, clinical utility, adverse effects and interactions of major therapeutic agents.
  o Select and apply basic pharmacologic and non-pharmacologic approaches to disease and symptom management.

• Social and cultural determinants of health and disease
  o Recognize the impact of age, culture, environment, disability, ethnicity/race, gender, sexuality, socioeconomic status and spirituality on health, disease, treatment and prevention.
  o Describe the concept of human rights and its impact on health, disease, treatment and prevention.

• Health care resources and delivery systems
  o Describe the global distribution of disease and its impact on the health care needs of communities.
  o Identify available models of and barriers to organizing, financing and delivering health care to patients and communities.
  o Describe the U.S. health care system and contrast it with other health care systems.
  o Describe a systems approach to address health care resource needs.
  o Describe emergency preparedness as related to health care needs.

• Ethical principles of medical practice and research
  o Recognize ethical dilemmas in the practice of medicine, health care systems and research.
  o Recognize the effects of laws and policies on medical practice and health care systems.
  o Apply the principles of autonomy, beneficence, non-maleficence, and justice to clinical scenarios and to issues of resource allocation.
Competency 3: Learning, Scholarship, and Collaboration

Graduates will be inquisitive and reflective learners and practitioners who will think creatively and work effectively and collaboratively with others.

- Self-awareness and commitment to self-improvement
  - Identify and critically reflect upon personal strengths, limitations and biases.
  - Recognize when and how to seek assistance and mentorship.
  - Actively solicit and incorporate feedback into practice.
  - Actively seek out self-directed learning opportunities.
  - Identify resources to support one’s own physical and emotional health.
  - Recognize one’s evolving role in patient care, teaching and inquiry.

- Methods of investigation, analysis and dissemination
  - Utilize information resources to facilitate learning and to inform patient care.
  - Formulate questions and generate hypotheses that will drive learning, investigation, discovery and innovation.
  - Engage in and present scholarly activity relevant to health and disease.

- Teamwork
  - Engage actively in group learning and peer and colleague teaching.
  - Recognize the role and expertise of interprofessional health care team members.
  - Work effectively as part of an interprofessional patient care team.

Competency 4: Professionalism and Advocacy

Graduates will use their knowledge and skills responsibly to serve the needs of patients and society.

- Service
  - Demonstrate a concern for the vulnerabilities of patients.
  - Advocate for individual and community access to health care and resources that promote health.
  - Show concern for the basic needs and life circumstances of patients.
  - Demonstrate commitment to the health care needs of communities.

- Leadership and Accountability
  - Assume responsibility for one’s own actions.
  - Identify strategies for effective conflict resolution, negotiation and decision-making.
  - Consistently follow up with learning tasks and patient care.
  - Adhere to institutional and professional standards of medical practice.
  - Recognize and report actual and potential medical errors.
  - Demonstrate a commitment to quality improvement and patient safety.

- Honesty and Integrity
  - Be honest and ethical in clinical interactions, educational activities, scholarly work and service activities.
  - Accurately represent one’s role and capabilities.
  - Recognize potential conflicts of interest.
• Empathy
  o Demonstrate compassion for the experiences and conditions of patients.
  o Respond to the emotional needs of patients and their caregivers.

• Respect
  o Acknowledge and protect the dignity of patients.
  o Act in a non-judgmental manner toward patients and caregivers.
  o Ensure the privacy of health information.
  o Conduct oneself in a manner appropriate to the setting and activity.