The Icahn School of Medicine at Mount Sinai Student Competencies

Competency 1: Patient Care
- History taking
- Physical examination
- Procedural skills
- Clinical reasoning
- Medical decision making
- Communication skills

Competency 2: Scientific and Medical Knowledge
- Organ structure and function
- Characteristics and mechanisms of disease
- Healing and therapeutics
- Social and cultural determinants of health and disease
- Health care resources and delivery systems
- Ethical principles of medical practice and research

Competency 3: Learning, Scholarship, and Collaboration
- Self-awareness and commitment to self-improvement
- Methods of investigation, analysis, and dissemination
- Teamwork

Competency 4: Professionalism and Advocacy
- Service
- Leadership and accountability
- Honesty and integrity
- Empathy
- Respect

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**
- Describe indications for and potential complications of basic procedures.
- Demonstrate correct techniques for basic procedures with attention to universal precautions, sterile technique and patient comfort.
- Describe indications for and potential complications of commonly performed advanced procedures.

**Clinical reasoning**
- 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.
- Formulate plausible explanations for clinical phenomena using probabilistic deduction and application of basic science principles, epidemiology, and biostatistics.
- Recognize patients who require emergent assessment and management.
- Recognize when screening for disease is appropriate.

**Medical decision making**
- 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.
- Recognize when consultation is required.
- Plan for safe transitions across the care continuum, with attention to health literacy, patient safety, and support systems.
- Apply the principles of evidence-based medicine to critique and utilize scientific literature and in clinical decision making.

**Communication skills**
- Communicate information honestly, accurately, reliably, empathically, and in a culturally sensitive manner with patients and their families and/or caregivers.
- Elicit and respond to patient values, preferences and expectations for health and health care.
- Communicate effectively with members of the inter-professional health care team.
- Listen actively to patients, their families and/or caregivers, and all members of the health care team.
- Effectively educate and counsel patients about plans of care, health promotion and disease prevention, chronic disease management and end-of-life care.
- 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**
- Apply the principles of anatomy, histology, and physiology to describe the interrelated functions of organs and organ systems.
- Apply the principles of molecular and cellular biology to describe the basis of tissue specificity.
- Apply knowledge of major biochemical pathways to describe normal cell function and metabolism.
- Describe the changes that occur to organs and organ systems in development and aging.
Characteristics and mechanisms of disease
- Explain mechanisms of disease using the principles of molecular biology and genetics.
- Describe the structural changes and physiologic alterations that underlie disease states.
- Explain how microorganisms interact with the host at cellular, tissue, and systems levels to promote homeostasis or cause disease.
- Describe the incidence of, prevalence of, and risk factors for major diseases.
- Recognize and interpret the clinical manifestations of major diseases.
- Develop prognoses based on the natural history of disease and patient presentation.
- Explain how genomics is used to predict disease vulnerability and inform management.

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

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

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

Ethical principles of medical practice and research
- Recognize ethical dilemmas in the practice of medicine, health care systems and research.
- Recognize the effects of laws and policies on medical practice and health care systems.
- 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 inter-professional health care team members.
- Work effectively as part of an inter-professional 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
- Demonstrate compassion for the experiences and conditions of patients.
- Respond to the emotional needs of patients and their caregivers.

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