

Competencies and Objectives of the Doctor of Medicine (M.D.) Degree Program

1	Altruism: Medical students must be compassionate and empathetic in caring for patients and must be trustworthy and truthful in their professional dealings. They must act with integrity, honesty, and respect for patients' dignity, privacy, and autonomy.	
<i>By the time of graduation, a medical student will:</i>		
1.1	List and define the basic principles guiding ethical decision-making.	
1.2	Apply ethical concepts to medical ethical situations	
	1.2.1	Demonstrate an understanding of situations requiring ethical decision-making.
	1.2.2	Apply principles of ethical decision-making to common medical ethical situations.
1.3	Demonstrate respect for human dignity, privacy, and autonomy.	
	1.3.1	List behaviors indicative of respect for human dignity, privacy, and autonomy.
	1.3.2	Demonstrate an understanding of the importance of behaviors indicative of respect for human dignity, privacy, and autonomy.
	1.3.3	Behave in a manner indicative of respect for human dignity, privacy, and autonomy.
1.4	Provide compassionate and trauma informed patient care.	
	1.4.1	List behaviors indicative of compassionate and trauma informed patient care.
	1.4.2	Demonstrate an understanding of the importance of behaviors indicative of compassionate and trauma informed patient care.
	1.4.3	Behave in a compassionate and trauma informed manner in caring for patients.
1.5	Demonstrate honesty and integrity in educational and professional interactions.	
	1.5.1	Demonstrate an understanding of the importance of codes of conduct.
	1.5.2	Behave in a manner consistent with the institutional and professional codes of conduct.
1.6	Demonstrate appropriate patient advocacy.	
	1.6.1	Demonstrate knowledge of the principles of patient advocacy.
	1.6.2	Demonstrate an understanding of the importance of patient advocacy.
	1.6.3	Appropriately apply principles of patient advocacy.
1.7	Understand the factors that impact health.	
	1.7.1	Demonstrate an understanding of economic factors that impact health.
	1.7.2	Demonstrate an understanding of psychosocial factors that impact health.
	1.7.3	Demonstrate an understanding of cultural factors that impact health.
	1.7.4	Demonstrate an understanding of spiritual or religious factors that impact health.
	1.7.5	Demonstrate an understanding of environmental factors that impact health.
	1.7.6	Demonstrate an understanding of how lifestyle impacts health.
	1.7.7	Demonstrate an understanding of medical factors that impact access to health care.

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	1.7.8	Demonstrate an understanding of how societal and structural factors impact health.
1.8	Appropriately address conflicts of interest inherent to the field of medicine.	
	1.8.1	Recognize conflicts of interest in the field of medicine.
	1.8.2	Apply appropriate measures when faced with conflicts of interest in the field of medicine.
2	Knowledge: Medical students must understand the scientific basis of medicine and be able to apply that understanding to the safe and effective practice of medicine. They must utilize self- assessment and self-knowledge to optimize their learning.	
	<i>By the time of graduation, a medical student will:</i>	
2.1	Demonstrate knowledge of normal structure and function of the human body.	
	2.1.1	Demonstrate knowledge of the normal structure, metabolism, and function of the molecules that compose the human body.
	2.1.2	Demonstrate knowledge of normal cellular structure and function of the human body.
	2.1.3	Demonstrate knowledge of normal structure and function of human organs.
	2.1.4	Demonstrate knowledge of normal structure and function of human organ systems.
	2.1.5	Demonstrate knowledge of the mechanisms that maintain homeostasis.
2.2	Demonstrate knowledge of the pathogenesis and pathophysiology of disease and disorders.	
	2.2.1	Demonstrate knowledge of the abnormal structure, metabolism, and function of the molecules that compose the human body.
	2.2.2	Demonstrate knowledge of abnormal cellular structure and function of the human body.
	2.2.3	Demonstrate knowledge of abnormal structure and function of human organs.
	2.2.4	Demonstrate knowledge of abnormal structure and function of human organ systems.
	2.2.5	Demonstrate knowledge of the mechanisms that disrupt homeostasis.
2.3	Demonstrate knowledge of the clinical manifestations of common conditions and disorders.	
	2.3.1	Given a common condition or disorder, list the symptoms a patient might experience.
	2.3.2	Given a common condition or disorder, list the findings that might be identified on a physical exam.
	2.3.3	Given a common condition or disorder, list the findings that might be identified on laboratory analysis and diagnostic tests.
	2.3.4	Given a common condition or disorder, list the findings that might be identified on imaging studies.
2.4	Demonstrate knowledge of the pharmacotherapeutic modalities for common conditions and disorders.	

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	2.4.1	Explain basic pharmacologic principles.
	2.4.2	List the routine medications that might be used to manage a common condition or disorder.
2.5	Demonstrate knowledge of the basic principles of clinical and translational research.	
	2.5.1	List the important elements of the scientific method and basic study design.
	2.5.2	Describe the role and importance of clinical and translational research in the care of patients.
	2.5.3	Describe the basic principles and ethics of how clinical and translational research is conducted, evaluated, and applied to the care of patients.
2.6	Demonstrate knowledge of the epidemiology of common conditions and disorders.	
	2.6.1	List the epidemiologic factors that place a person or population at risk for a common condition or disorder.
	2.6.2	List the epidemiologic factors that affect transmission or development of a common condition or disorder.
	2.6.3	List the strategies used to control and prevent a common condition or disorder.
2.7	Demonstrate knowledge of systems of healthcare delivery.	
	2.7.1	Describe key features of various systems of healthcare delivery.
	2.7.2	Describe the advantages and disadvantages of various systems of healthcare delivery.

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3	Skill: Medical students must acquire wide-ranging skills that will enable them to care for patients as a professional.	
	<i>By the time of graduation, a medical student will:</i>	
	3.1	Obtain an accurate and complete medical history.
	3.1.1	List in appropriate order the essential components of a complete medical history.
	3.1.2	Describe the content of each of the essential components of a complete medical history.
	3.1.3	Demonstrate an understanding of the purpose/importance of each of the essential components of a complete medical history.
	3.1.4	Demonstrate effective interview techniques to obtain an accurate comprehensive medical history.
	3.1.5	Demonstrate effective interview techniques to obtain an accurate problem focused medical history.
	3.1.6	Demonstrate effective interview techniques to obtain an accurate medical history in the following disciplines: family medicine, internal medicine, obstetrics & gynecology, pediatrics, psychiatry, surgery, neurology, and emergency medicine.
	3.1.7	Demonstrate effective interview techniques to obtain an accurate medical history under special circumstances: history obtained from a person other than the patient, history obtained using an interpreter, history obtained under urgent circumstances.
	3.1.8	Demonstrate the ability to obtain an accurate medical history from other health care providers and medical records.
	3.2	Perform all components of a complete physical examination. -
	3.2.1	List and describe the essential components of a complete physical examination.
	3.2.2	Demonstrate an understanding of the purpose of each essential component of a complete physical examination.
	3.2.3	Demonstrate appropriate and effective techniques in performing a complete physical examination.
	3.2.4	Demonstrate appropriate and effective techniques in performing a problem focused / hypothesis driven physical examination.
	3.2.5	Demonstrate appropriate and effective techniques in performing a complete and problem focused / hypothesis driven physical examination in the following disciplines: family medicine, internal medicine, obstetrics & gynecology, pediatrics, psychiatry, surgery, neurology, and emergency medicine.
	3.3	Prepare for and perform basic clinical procedures (see appendix)
	3.3.1	Demonstrate an understanding of the indications, contraindications, and potential adverse outcomes for each of the listed procedures.
	3.3.2	List in appropriate order the essential steps to perform each of the listed procedures.
	3.3.3	Describe the essential steps to perform each of the listed procedures.

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	3.3.4	Demonstrate appropriate and effective techniques in performing each of the listed procedures.
3.4	Perform basic interpretation of commonly used diagnostic tests. -	
3.5	Recognize the typical physical exam manifestations of common medical conditions and disorders.	
	3.5.1	Use appropriate physical exam techniques to identify a common condition or disorder.
3.6	Demonstrate the skills of clinical reasoning and clinical problem solving for common conditions and disorders.	
	3.6.1	Given a patient with a particular chief complaint and medical history, list the appropriate components of the physical exam that warrant evaluation.
	3.6.2	Given a patient with a particular chief complaint, medical history, and physical exam findings, list an appropriate differential diagnosis.
	3.6.3	Given a patient whose history and physical exam lead to a particular differential diagnosis, list the initial studies that should be ordered, including laboratory, radiological, and other studies or procedures.
	3.6.4	Demonstrate the ability to recognize conditions requiring immediate intervention from those that do not.
	3.6.5	Utilize the information gained by history, physical exam, laboratory tests, radiology tests, and other studies or procedures to determine an appropriate diagnosis.
3.7	Create appropriate management strategies for common conditions and disorders.	
	3.7.1	Demonstrate an understanding of the safe and effective use of particular medications in the management of a given common condition or disorder.
	3.7.2	List appropriate consultants utilized in the management of a given common condition or disorder.
	3.7.3	List the procedures or surgeries that might be used to manage a given common condition or disorder.
	3.7.4	Demonstrate the ability to use pertinent biomedical information in the management of a given common condition or disorder.
	3.7.5	Describe how patients with a given common condition or disorder are managed over time.
	3.7.6	List interprofessional health services and the role they might play in the management of a given common condition or disorder.
	3.7.7	Provide appropriate guidance for home management of a given common condition or disorder.
	3.7.8	Provide appropriate counseling on therapeutic lifestyle changes.
	3.7.9	List commonly used complementary and alternative medicine modalities.
3.8	Apply the principles of assessing and managing total pain incorporating physical, psychological, spiritual, and social aspects.	
	3.8.1	Demonstrate an understanding of the mechanisms of pain
	3.8.2	Recognize the various manifestations of pain

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	3.8.3	Describe the principles of managing pain using medications and other modalities.	
	3.8.4	Given a particular patient situation, describe and explain appropriate pain management using medications and other modalities.	
3.9	Demonstrate effective and appropriate communication of medical information, both in writing and verbally.		
	3.9.1	Demonstrate an understanding of the HIPAA rules on patient privacy.	
	3.9.2	List the elements of effective and appropriate communication of medical information to patients, patient family members, other physicians, interprofessional team members, and other non-health care related entities.	
	3.9.3	Demonstrate an understanding of the importance of each of the elements of effective and appropriate communication of medical information to patients, patient family members, other physicians, and interprofessional team members.	
	3.9.4	Given a specific clinical situation, demonstrate effective and appropriate communication of medical information to patients, patient family members, other physicians, interdisciplinary team members.	
3.10	Demonstrate the ability and commitment to continuously improve medical knowledge and skills.		
	3.10.1	Demonstrate the ability to self-assess current knowledge and skills.	
	3.10.2	Demonstrate the ability to identify and access pertinent biomedical information resources that would address gaps in knowledge and skills.	
	3.10.3	Demonstrate the ability to evaluate the effectiveness of available biomedical information resources in addressing gaps in knowledge and skills.	
<p>Origination Date: 2008</p> <p style="margin-left: 20px;">Last Amended Date: 12/19/24; 4/21/2022; 7/16/2020; 2/15/2018</p> <p>Next Schedule Review Date: AY 2027-2028</p> <p>2024: Reviewed by Design & Integration (D&I) subcommittee, suggested revisions presented and approved by Curriculum Committee at 12/19/24 meeting.</p> <p>2022: Reviewed by Design & Integration (D&I) subcommittee, suggested revisions presented and approved by Curriculum Committee at 4/21/22 meeting.</p> <p>2020: Reviewed by Design & Integration (D&I) subcommittee, suggested revisions presented and approved by Curriculum Committee at 7/16/20 meeting.</p> <p>2018: Reviewed by Design & Integration (D&I) subcommittee, suggested revisions presented and approved by Curriculum Committee at 2/15/18 meeting.</p>			



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Appendix: Basic Clinical Procedures (Objective 3.3)

1. Establish and maintain a sterile field
2. Perform venipuncture
3. Insert and remove an intravenous catheter
4. Insert and remove a nasogastric tube
5. Insert and remove a foley catheter
6. Suture simple incisions and lacerations
7. Administer subcutaneous and intramuscular injections
8. Perform basic cardiac life support (BLS)
9. Obtain a 12-lead EKG
10. Acquire an ultrasound image