



## **POLICY**

**Number: 400**

**Area: MD Program Education**

**Title: Educational Program Objectives**

The following competency-based Educational Program Objectives guide the planning, delivery, and evaluation of the College of Medicine core undergraduate medical education program. Students are expected to demonstrate competency in each of these areas prior to graduation.

### **1. Medical Knowledge**

**Students will demonstrate knowledge of the...**

- a. Basic scientific principles fundamental to the practice of medicine
- b. Normal structure, function, and embryology of organ systems
- c. Pathogenesis and manifestations of clinical disorders
- d. Utility, mechanisms of action, and adverse effects of commonly used drugs
- e. Physical, cognitive, emotional, social, and behavioral aspects of human development

### **2. Patient Care**

**Students will be able to...**

- a. Elicit a medical history and perform a physical examination
- b. Interpret common diagnostic and screening tests
- c. Create, prioritize, and justify a differential diagnosis
- d. Evaluate and manage common clinical conditions
- e. Perform general procedures of a physician
- f. Apply principles of health promotion and disease prevention to patient care

g. Describe and address common societal problems adversely affecting health in Oklahoma

h. Provide general care to diverse patient populations

### **3. Communication**

#### **Students will be able to...**

a. Use effective listening, observational, and communication techniques with patients and families

b. Deliver clear and accurate oral presentations using standard formats tailored to the needs of the listener

c. Provide accurate and context-specific documentation of clinical encounters in written and electronic formats

### **4. Professionalism**

#### **Students will be able to...**

a. Demonstrate altruism, honesty, compassion, and responsiveness to patient needs

b. Demonstrate integrity, respect, reliability, and accountability in professional endeavors

c. Demonstrate commitment to ethical principles by respecting patient autonomy and seeking the patient's best interest

d. Demonstrate cultural sensitivity, recognize personal and systemic healthcare biases, identify demographic influences on healthcare quality and outcomes, and suggest strategies to reduce health disparities

### **5. Practice-Based Learning**

#### **Students will be able to...**

a. Use biostatistics and the scientific method, describe principles of clinical and translational research, appraise scientific studies, and engage in evidence-based clinical practice

b. Identify and address personal strengths and weaknesses, respond appropriately to feedback, and seek help and advice when needed

c. Engage in self-directed learning as a foundation of life-long learning

### **6. Systems-Based Practice**

#### **Students will be able to...**

a. Integrate the unique and complementary abilities of other healthcare professionals and collaborate as a member of an interprofessional team

b. Explain the principles of health systems science and contribute to a culture that promotes patient safety

c. Describe and apply the fundamental principles of community medicine\*

**\* Supplemental SCM Track Objective. Objectives are assigned to EPO 6c for students on the Tulsa Campus Only**

The following competency-based School of Community Medicine (SCM) Track Objectives guide the planning, delivery, and evaluation of the community medicine-specific programming. Students participating in the Tulsa campus SCM track are expected to demonstrate competency in each of these areas prior to graduation.

**SCM A.** Describe the characteristics of community

A1. Define community

A2. Discuss the role of community in health

A3. Define a meaningful population for health improvement purposes

**SCM B.** Identify the principal determinants of population health

B1. Describe population-level determinants of health

B2. Discuss how these factors influence health status and healthcare delivery

**SCM C.** Assess the health status, needs, and resources of a community

C1. Evaluate available statistics to identify health problems or areas of concern

C2. Identify existing community-based assets and resources to improve population health

**SCM D.** Use community engagement to promote population health

D1. Refer individual patients to resources that can assist in meeting their health needs

D2. Participate in community engagement to understand community needs

**SCM E.** Use principles of evidence-based practice to promote population health

E1. Analyze the literature applicable to problems identified among patients and populations

E2. Apply the scientific literature to patient care taking into account patient values, resources, and preferences

**SCM F.** Apply principles of quality improvement to promote population health

- F1. Utilize patient data and a quality improvement model to improve the health of a patient population
- F2. Describe the role of evaluation in program improvement and advocacy
- F3. Describe how quality improvement principles can be applied to improving team functioning

**SCM G.** Apply principles of population health to daily practice

- G1. Describe how social determinants of health impact an individual's health
- G2. Describe how inter-professional collaborations can help meet individual patients needs and affect population health
- G3. Apply knowledge of social determinants of health in treatment planning and delivery

**End of Phase Competencies**

MD program students are expected to demonstrate competency in the following areas at the conclusion of the preclinical and clinical curriculum phases (i.e., segments). Student competency is assessed throughout each phase via outcome measures identified by the faculty.

**Competency 1: Medical Knowledge**

Objective 1a: To demonstrate knowledge of basic science principles fundamental to the practice of medicine

At the end of the preclinical phase, students should be able to:

1a.1 Demonstrate knowledge of the basic principles of genetics, biochemistry, and cellular biology

1a.2 Demonstrate knowledge of the basic principles human anatomy

1a.3 Demonstrate knowledge of the basic principles of physiology, pharmacology, and pathology

1a.4 Demonstrate knowledge of the basic principles of microbiology and immunology

By graduation, students should be able to:

1a.5 Apply knowledge of genetics, biochemistry, and cellular biology to clinical medicine

1a.6 Apply knowledge of human anatomy to clinical medicine

1a.7 Apply knowledge of the pathophysiology and pathology to clinical medicine

1a.8 Apply knowledge of basic pharmacology to clinical medicine

1a.9 Apply knowledge of microbiology and immunology to clinical medicine

Objective 1b: To demonstrate knowledge of the normal structure, function, and embryology of organ systems

At the end of the preclinical phase, students should be able to:

1b.1 Describe the structure, function, and embryologic development of the hematologic and lymphatic systems

1b.2 Describe the structure, function, and embryologic development of the gastrointestinal and hepatobiliary systems

1b.3 Describe the structure, function, and embryologic development of the endocrine system

1b.4 Describe the basic principles of metabolism and nutrition

1b.5 Describe the structure, function, and embryologic development of the cardiovascular, pulmonary, and renal systems

1b.6 Describe the structure, function, and embryologic development of the nervous system

1b.7 Describe the basic principles of human behavior

1b.8 Describe the structure, function, and embryologic development of the male and female reproductive systems

1b.9 Describe the structure, function, and embryologic development of the integumentary and musculoskeletal systems

By graduation, students should be able to:

1b.10 Apply knowledge of the basic structure and function of organ systems to clinical medicine

1b.11 Apply knowledge of basic embryology to clinical medicine

Objective 1c: To demonstrate knowledge of the pathogenesis and manifestations of clinical disorders

At the end of the preclinical phase, students should be able to:

1c.1 Identify the principal causes of disease: genetic, developmental, infectious, inflammatory, immunologic, traumatic, toxic, environmental, metabolic, degenerative, and

neoplastic

1c.2 Describe the principal manifestations of common medical conditions

By graduation, students should be able to:

1c.3 Apply knowledge of the principal pathogenic mechanisms to patient care

1c.4 Apply knowledge of the clinical, laboratory, radiographic, and electrocardiographic manifestations of disease to patient care

Objective 1d: To demonstrate knowledge of the utility, mechanisms of action, and adverse effects of commonly used drugs

At the end of the preclinical phase, students should be able to:

1d.1 Describe the utility, mechanisms of action, and adverse effects of commonly used drugs

By graduation, students should be able to:

1d.2 Apply knowledge of pharmacology to patient care

Objective 1e: To demonstrate knowledge of physical, cognitive, emotional, and social aspects of human development

At the end of the preclinical phase, students should be able to:

1e.1 Describe the physical, cognitive, emotional, and social dimensions of human development

By graduation, students should be able to:

1e.2 Apply knowledge of human development to the care of patients

## **Competency 2: Patient Care**

Objective 2a: To elicit a medical history and perform a physical examination

At the end of the preclinical phase, students should be able to:

2a.1 Elicit a comprehensive and focused medical history

2a.2 Perform a comprehensive and focused physical examination

By graduation, students should be able to:

2a.3 Elicit a medical history, including a psychiatric and obstetric history, from an adult patient in the hospital or clinic setting

2a.4 Perform a physical exam, including mental status, neurologic, breast, and pelvic exam, on an adult patient in the hospital or clinic setting

2a.5 Perform an infant hip exam and a pediatric eye, ear/nose/throat, lymphatic, and male genitourinary exam

Objective 2b: To interpret common diagnostic and screening tests

At the end of the preclinical phase, students should be able to:

2b.1 Interpret common laboratory, radiographic, electrocardiographic, and interventional tests

By graduation, students should be able to:

2b.2 Use the results of common laboratory, radiographic, electrocardiographic, and interventional tests for diagnostic and screening purposes

Objective 2c: To create, prioritize, and justify a differential diagnosis

At the end of the preclinical phase, students should be able to:

2c.1 Identify the chief presenting symptom in a standardized patient

2c.2 Establish a short, prioritized differential diagnosis based on information obtained from the medical history and physical examination

2c.3 Identify elements in the medical history and physical examination that support each item in the differential diagnosis

By graduation, students should be able to:

2c.4 Identify all major symptoms experienced by a patient in the hospital or clinic setting

2c.5 Establish a detailed differential diagnosis for each symptom based on information obtained from the medical history, physical examination, and diagnostic tests

2c.6 Identify elements in the medical history, physical examination, and laboratory tests that support or detract from each item in the differential diagnosis

Objective 2d: To evaluate and manage common clinical conditions

At the end of the preclinical phase, students should be able to:

2d.1 Evaluate a set of common clinical presentations in case vignettes and standardized patients By graduation, students should be able to:

2d.2 Evaluate a wide array of clinical presentations in hospitalized and clinic patients

2d.3 Diagnose and manage common clinical conditions seen in the inpatient and outpatient settings

Objective 2e: To perform general procedures of a physician

At the end of the preclinical phase, students should be able to:

N/A

By graduation, students should be able to:

2e.1 Gown and glove

2e.2 Suture and tie knots in a simulated environment

2e.3 Catheterize the urinary bladder in a simulated environment

2e.4 Insert intravenous catheter in a simulated environment

2e.5 Intubate and ventilate in a simulated environment

2e.6 Perform Pap test

2e.7 Insert a urinary bladder catheter in a patient

2e.8 Perform suturing and knot-tying on a patient

2e.9 Assist in placement of a nasogastric tube

2e.10 Assist in placement of an intravenous line

2e.11 Assist in surgical wound care

Objective 2f: To apply principles of health promotion and disease prevention to patient care

At the end of the preclinical phase, students should be able to:

2f.1 Describe the utility of each of the following in health promotion and disease prevention: risk assessment, behavioral modification, health screening, nutrition, exercise, weight management, family planning, and immunization

By graduation, students should be able to:

2f.2 Apply the tools of health promotion and disease prevention to the care of children, adults, pregnant women, and the elderly

Objective 2g: To describe and address common societal problems adversely affecting health in Oklahoma

At the end of the preclinical phase, students should be able to:

2g.1 Describe strategies for preventing, diagnosing, and treating substance use disorder

2g.2 Describe strategies for preventing, diagnosing, and treating obesity

2g.3 Describe strategies for preventing, detecting, and addressing child abuse

2g.4 Describe strategies for preventing, detecting, and addressing elder abuse

2g.5 Describe strategies for preventing and addressing teen pregnancy

By graduation, students should be able to:

2g.6 Provide care to patients with substance use disorder

2g.7 Provide care to patients with obesity



2g.8 Provide care to victims of child abuse

2g.9 Provide care to victims of elder abuse

2g.10 Provide care to pregnant teens

Objective 2h: To provide general care to diverse populations

By graduation, students should be able to:

2h.1 Provide general care to inpatients and outpatients

2h.2 Provide general care to patients of diverse socioeconomic and cultural backgrounds

2h.3 Provide general care to patients with urgent and non-urgent presentations

### **Competency 3: Communication**

Objective 3a: To use effective listening, observational, and communication techniques with patients and families in routine and cross-cultural settings

At the end of the preclinical phase, students should be able to:

3a.1 Greet and establish rapport with patients

3a.2 Pose open-ended questions

3a.3 Use verbal and non-verbal facilitative behavior

3a.4 Summarize details of a patient's medical history

3a.5 Properly transition from section to section of a patient's medical history

3a.6 Listen actively

3a.7 Encourage patient participation

3a.8 Elicit patient's perspective regarding symptoms and problems

3a.9 Demonstrate patient-centered approach to care, including shared decision-making

3a.10 Demonstrate empathy

3a.11 Explore and validate patient's emotions

3a.12 Avoid medical jargon

3a.13 Allow patient to speak without interruption

3a.14 Provide uncomplicated explanations and instructions

3a.15 Assess patient comprehension

By graduation, students should be able to:

3a.16 Demonstrate all skills listed above in the care of hospitalized and clinic patients

3a.17 Engage in age-appropriate communication with children

3a.18 Address victims of domestic violence properly

3a.19 Interact with individuals who have cognitive or behavioral problems

3a.20 Communicate with victims of elder abuse

3a.21 Deliver “bad news”

Objective 3b: To deliver clear and accurate oral presentations

At the end of the preclinical phase, students should be able to:

3b.1 Orally present a comprehensive history and physical (H&P)

3b.2 Orally present an abbreviated SOAP report

By graduation, students should be able to:

3b.3 Present an accurate H&P and SOAP note on hospitalized and clinic patients

3b.4 Conduct an effective handover using the SBAR method of communication

Objective 3c: To provide accurate and context-specific documentation of clinical encounters

At the end of the preclinical phase, students should be able to:

3c.1 Write a comprehensive H&P

3c.2 Write a SOAP progress note

By graduation, students should be able to:

3c.3 Write an admission H&P and a SOAP-format progress note on a hospitalized and clinic patient

3c.4 Write a patient handover note in SBAR format 3c.5 Write a discharge summary

3c.6 Write a pre-operative, operative, and post-operative note on a hospitalized patient

#### **Competency 4: Professionalism**

Objective 4a: To demonstrate honesty, compassion, and responsiveness to patient needs

At the end of the preclinical phase, students should be able to:

4a.1 Identify the following attributes on the College of Medicine’s list of approved attributes: honesty and integrity; care and compassion; courtesy and respect; and cultural sensitivity and humility

4a.2 Demonstrate these attributes with standardized and “real” patients By graduation, students should be able to:

4a.3 Demonstrate the attributes listed in 4.1.1 when caring for patients in all professional settings

Objective 4b: To demonstrate integrity, reliability, and accountability in professional endeavors

At the end of the preclinical phase, students should be able to:

4b.1 Identify the College of Medicine's list of approved attributes including accountability and responsibility; punctuality; professional appearance; attentiveness and participation; accuracy of representation of clinical findings; commitment to self-improvement and accepting feedback; and admission of mistakes and error

4b.2 Demonstrate these attributes with standardized and "real" patients

By graduation, students should be able to:

4b.3 Demonstrate the attributes listed in 4.2.1 in all professional settings

Objective 4c: To demonstrate commitment to ethical principles by respecting patient autonomy and seeking the patient's best interest

At the end of the preclinical phase, students should be able to:

4c.1 Identify the following principles of medical ethics: privacy and confidentiality involving patients and medical records; patient autonomy; recognition and avoidance of conflicts of interest; admission of mistakes and errors

4c.2 Uphold these principles when caring for standardized and "real" patients

By graduation, students should be able to:

4c.3 Uphold the principles listed in 4.3.1 when caring for patients in all professional settings

Objective 4d: To demonstrate cultural sensitivity, recognize personal biases, identify demographic influences on health care quality, and suggest strategies to reduce health disparities

At the end of the preclinical phase, students should be able to:

4d.1 Explain the role of cultural humility in health care

4d.2 Describe the consequences of bias, discrimination, racism, and stereotyping

4d.3 Elicit a social and cultural history

4d.4 Demonstrate cultural sensitivity By graduation, students should be able to: 4d. 5 Engage in cross-cultural communication and negotiation

4d.6 Identify demographic influences on health care quality

4d.7 Suggest strategies to reduce health disparities

4d.8 Recognize personal biases

## **Competency 5: Practice-based Learning**

Objective 5a: To demonstrate the ability to evaluate the medical literature and apply information to the diagnosis, treatment, and prevention of disease

At the end of the preclinical phase, students should be able to:

5a.1 Describe the basic principles of biostatistics 5a.2 Describe the basic principles of study design 5a.3 Apply principles of evidence-based medicine to scientific or clinical questions

By graduation, students should be able to:

5a.4 Write a well-built clinical question pertaining to an assigned patient, conduct a literature search, find an appropriate article, appraise the article, and use the appraisal to answer the clinical question

Objective 5b: To identify and address personal strengths and weaknesses, respond appropriately to feedback, and seek help and advice when needed

At the end of the preclinical phase, students should be able to:

5b.1 Demonstrate understanding that everyone has shortcomings in one or more spheres – cognitive, physical, behavioral, emotional, and moral – and that deficiencies in any sphere may impact the provision of healthcare

5b.2 Demonstrate understanding that constructive criticism and feedback are beneficial and not punitive

5b.3 Demonstrate understanding that self-analysis with an eye toward identifying and correcting weaknesses is an essential skill for physicians-in-training

By graduation, students should be able to:

5b.4 Ask peers and instructors questions about patient care

5b.5 Request feedback on one's own clinical performance

5b.6 If feedback is too general, ask about performance on specific tasks

5b.7 Use feedback to improve performance

5b.8 If unsure how to improve performance, ask for recommendations

Objective 5c: To engage in self-directed learning as a foundation for life-long learning

At the end of the preclinical phase, students should be able to:

5c.1 Self-assess learning needs; identify, analyze, and synthesize relevant information; appraise the credibility of information sources

By graduation, students should be able to:

5c.2 Engage in self-directed learning as a routine part of evaluating patients

## **Competency 6: Systems-based Practice**

Objective 6a: To integrate the unique and complementary abilities of other health professionals and collaborate as a member of an interprofessional team

At the end of the preclinical phase, students should be able to:

6a.1 Identify the four collaborative practice competency domains established by the Interprofessional Education Collaborative: values and ethics; roles and responsibilities; communication; and teamwork

6a.2 Communicate with peers from other healthcare disciplines about their educational background, their reasons for choosing a particular discipline, their daily responsibilities, and the role their discipline plays in the overall provision of healthcare

6a.3 Engage with peers from other healthcare disciplines in shared patient-centered problemsolving

By graduation, students should be able to:

6a.4 Describe the roles and responsibilities of non-physician health professionals on the healthcare team

6a.5 Contribute to a climate of mutual respect when interacting with non-physician health professionals

6a.6 Include team members in relevant information exchange

6a.7 Collaborate as a member of an interprofessional team

Objective 6b: To explain the principles of quality improvement and contribute to a culture that promotes patient safety

At the end of the preclinical phase, students should be able to:

6b.1 Describe the principles of quality improvement

6b.2 Identify factors that contribute to “danger” in the healthcare setting

6b.3 Identify common types of medical error and strategies to reduce errors

6b.4 Describe the relationship between complexity and error, and explain the role of standardization and simplification in patient safety

By graduation, students should be able to:

6b.5 Routinely engage in practices that promote patient safety, including handwashing and adherence to standard and transmission-based precautions

6b.6 Describe the role of the hospital's Quality Improvement Committee (or equivalent) in advancing patient safety

6b.7 Notify the attending physician or other appropriate authority when an event that compromises patient safety is witnessed

**Policy Date: 7/5/2017**  
**Approved By: Medical Education Committee**  
**Date Revised: 3/1/2023**  
**Date Reviewed: 3/1/2023**