

University of Pittsburgh School of Medicine Technical Standards for The Doctor of Medicine Degree

Graduates of the University of Pittsburgh School of Medicine are expected to have a broad competence in the basic skills underlying the general practice of medicine and surgery. All graduates must be able to take history, examine an individual and synthesize the findings into a diagnosis and plan of evaluation and treatment. This must be accomplished independently without aid of an intermediary.

Medical students must possess the requisite sensory, motor, communicative and cognitive capabilities to accomplish these requirements in a reliable manner and become competent and safe medical practitioners. Thus, our students must have the capability to undertake all our curricular requirements to the satisfaction of our supervising faculty.

Our Technical Standards specify the abilities and skills needed to successfully complete our curricular requirements.

Disability identification is voluntary and confidential. The University of Pittsburgh offers academic support accommodations for qualified, eligible students with disabilities. Please contact our Office of Disability Resources and Services at 412-648-7890 for information regarding eligibility requirements and deadlines that will ensure accommodation which may require extended preparation time for the beginning of the semester.

Guidelines:

Medical education requires the acquisition of skills and professional attitudes and behavior as well as the accumulation of scientific knowledge. The complete process involves a pre-professional preparatory phase; rigorous professional education leading to the M.D. degree; postgraduate residency training; and independent continual self-education throughout the professional years. The doctor of medicine degree certifies that the student has acquired the broad base of knowledge and skills required for the practice of medicine and for entry into specialized postgraduate training programs. In order to graduate the best possible physicians, medical school standards must be rigorous and exacting and admissions must be extended only to those who are best qualified to meet the performance standards of the profession.

Acceptances are offered to those who present the highest qualifications for the study and practice of medicine. Graduates must have the knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care.

Candidates for the M.D. degree must have somatic sensation and the functional use of the senses of vision and hearing. Candidates' diagnostic skills will also be lessened without the functional use of the senses of equilibrium, smell and taste. Additionally, they must have sufficient exteroceptive sense (touch, pain and temperature), sufficient proprioceptive sense (position, pressure, movement, stereognosis and vibratory) and sufficient motor function to permit them to carry out the activities described in the sections that follow. They must be able consistently, quickly and accurately to integrate all information received by whatever sense(s) employed, and they must have the intellectual ability to learn, integrate, analyze and synthesize data.

Candidates for the M.D. degree must have abilities and skills of five varieties including observation; communication; motor; conceptual, integrative and quantitative; and behavioral and social. Technological compensation can be made for some disabilities in certain of these areas but a candidate should be able to perform in a reasonably independent manner. The use of a trained intermediary means that a candidate's judgment must be mediated by someone else's power of selection and observation. Since the treatment of patients is an essential part of the educational program, schools must at all costs act to protect the health and safety of patients.

1. Observation

The candidate must be able to observe demonstrations and experiments in the basic sciences, including but not limited to physiologic and pharmacologic demonstrations in animals, microbiologic cultures, and microscopic studies of microorganisms and tissues in normal and pathologic states. A candidate must be able to observe a patient accurately at a distance and close at hand. Observation necessitates the functional use of the sense of vision and somatic sensation. It is enhanced by the functional use of the sense of smell.

2. Communication

A candidate should be able to speak, to hear and to observe patients in order to elicit information, describe changes in mood, activity and posture, and perceive nonverbal communications. A candidate must be able to communicate effectively and sensitively with patients. Communication includes not only speech but also reading and writing. The candidate must be able to communicate effectively and efficiently in oral and written form with all members of the health care team.

3. Motor

Candidates should have sufficient motor function to elicit information from patients by palpation, auscultation, percussion, and other diagnostic maneuvers. A candidate should be able to do basic laboratory tests (urinalysis, CBC, etc.), carry out diagnostic procedures (proctoscopy, paracentesis, etc.) and read EKGs and x-rays. A candidate should be able to execute motor movements reasonably required to provide general care and emergency treatment to patients. Examples of emergency treatment reasonably required of physicians are cardiopulmonary resuscitation, the administration of intravenous medication, the application of pressure to stop bleeding, the opening of obstructed airways, the suturing of simple wounds, and the performance of simple obstetrical maneuvers. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.

4. Intellectual- Conceptual, Integrative and Quantitative Abilities

These abilities include measurement, calculation, reasoning, analysis, and synthesis. Problem solving, the critical skill demanded of physicians, requires all of these intellectual abilities. In addition, the candidate should be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures.

5. Behavioral and Social Attributes

A candidate must possess the emotional health required for full utilization of his/her intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive and effective relationships with patients. Candidates must be able to tolerate physically taxing workloads and to function effectively under stress. They must be able to adapt to changing environments, to display flexibility and to learn to function in the face of uncertainties inherent in the clinical problems of many patients. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that shall be assessed during the admissions and education processes.

CURRICULAR REQUIREMENTS LEARNING OBJECTIVES - For The Medical Student Curriculum

Curriculum Committee University of Pittsburgh School of Medicine

Revised October 2002

The curriculum for the University of Pittsburgh School of Medicine is intended to foster the acquisition of those skills, areas of knowledge, and personal attitudes, values and qualities which the faculty considers to be essential for attainment of the M.D. degree. These are as follows:

SKILLS

1. Conduct effective patient interviews and obtain a complete medical history using appropriate communication skills.
2. Perform accurate general and organ system-focused physical examinations.
3. Demonstrate interpersonal skills that build rapport and empathic communication with patients and their families. Address sensitive issues in an effective, compassionate, non-judgmental manner.
4. Select and interpret appropriate laboratory and diagnostic studies in evaluations of patients.
5. Synthesize and analyze data from the history, physical examination and diagnostic studies to formulate problem lists, working hypotheses, differential diagnoses and plans for evaluation and treatment,
6. Communicate data effectively to colleagues through organized and concise verbal and written presentations.
7. Apply cost/benefit and risk/benefit information to patient care decisions.
8. Demonstrate competence in the performance of basic medical and surgical procedures.
9. Effectively educate and counsel patients and families, using sound principles for changing patients' behavior in order to promote and improve their health.
10. Work effectively in inpatient and ambulatory settings, including managed care groups and with underserved populations.
11. Function as a member of a healthcare team to deliver coordinated and continuous care.
12. Recognize and triage emergency medical conditions.
13. Effectively access, retrieve, manage and utilize information resources.
14. Critically evaluate published literature.
15. Manage and organize time, and prioritize work-load.

AREAS OF KNOWLEDGE

1. Biologic principles and mechanisms of normal reproduction, growth, development, maturation and aging.
2. Cellular and organ systems structure, function and organization.

3. Molecular and cellular mechanisms as they relate to disease.
4. Human behavior as it relates to wellness and disease.
5. Etiology, pathophysiology, clinical manifestations and natural history of disease.
6. Interpretation and scientific basis of diagnostic modalities, including their limitations, cost/benefit and risk/benefit aspects.
7. Principles of and the relative advantages and disadvantages of various therapeutic modalities, including surgery, pharmacology, physical rehabilitation, mental health care, behavioral modification, and complementary and alternative practices, as applied to common clinical situations.
8. Principles and practice of preventive medicine.
9. Principles of public health and community medicine.
10. Medical ethics.
11. Medical decision analysis.
12. Medical/social economics.
13. Health care delivery systems.
14. Medical information systems.
15. Quality improvement.

PERSONAL QUALITIES, VALUES AND ATTITUDES

1. Personal integrity, dependability and responsibility.
2. Intellectual curiosity and commitment to lifelong learning.
3. Appreciation of the importance of scientific inquiry, scientific methods and scholarship as routes to new knowledge.
4. Appreciation of and ability to deal with uncertainty.
5. Willingness to re-examine existing premises and assumptions.
6. Commitment to teaching students, peers and patients.
7. Understanding of the primacy of the physician's responsibility to, and concern for, the welfare of their patients.
8. Awareness of potential conflicts between the physician's responsibilities to the patient and to society.
9. Respect for patient's rights and privacy concerns.
10. Respectful and compassionate attitude toward patients, families and health professionals, with sensitivity to cultural, economic, gender and ethnic differences.
11. Commitment to involve patients and their families in the decision making process.
12. Collegial acceptance of scrutiny of professional practice, and of quality improvement processes.

13. Commitment to dealing with professional mistakes openly and honestly in ways that promote patient trust and self-learning.

14. Awareness of and concern for the costs of practicing medicine, with a commitment to minimizing costs without compromising patient care.