

A.T. Still University's Kirksville College of Osteopathic Medicine Minimal Technical Standards for Matriculation

Introduction

A.T. Still University's Kirksville College of Osteopathic Medicine (KCOM) is committed to equal access for all qualified applicants and students. Minimal Technical Standards for Matriculation (the "Standards") state expectations of KCOM students. The Standards provide sufficient information to allow the candidate to make an informed decision for application. Minimal Technical Standards for Matriculation are a guide to accommodation of students with disabilities. Accommodations can be made for disabilities in some instances, but a student must be able to perform in a reasonably independent manner. Procedures to apply for accommodations are found at the conclusion of this policy.

Statement of Inclusion

KCOM admits and matriculates qualified osteopathic medical students. KCOM prohibits discrimination against anyone on the basis of race, color, national origin, religion, sex, age, sexual preference or disability. KCOM expects all applicants and students to meet certain minimal technical standards as set forth herein. In adopting these standards the College believes it must keep in mind the ultimate safety of the patients who may be involved in the course of the student's education as well as those patients for whom its graduates will eventually care. The Standards reflect what the College believes are reasonable expectations of osteopathic medical students (and physicians) in learning and performing common osteopathic medical treatment.

Categories, Standards and Examples

A Doctor of Osteopathic Medicine (D.O.) must have the knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care. In order to carry out the activities described below, students must be able to consistently, quickly, and accurately integrate, analyze, and synthesize data. Students must possess, at a minimum, the following abilities and skills: observation; communication; motor; sensory; strength and mobility; intellectual, conceptual, integrative and quantitative; and, behavioral and social. These abilities and skills comprise the categories of KCOM Minimal Technical Standards for Matriculation and are defined below. Standards and examples appear in table format after the categories. The examples mentioned are not intended as a complete list of expectations, but only as samples demonstrating the associated standards.

1. Observation: Students must have sufficient vision to observe demonstrations, experiments and laboratory exercises. Students must have adequate visual capabilities for proper evaluation and treatment integration. They must be able to observe a patient accurately at a distance and up close.

2. Communication: Students should be able to hear, observe and speak to patients in order to elicit and acquire information, examine them, describe changes in mood, activity, and posture, and perceive their nonverbal communication. Students must also be able to communicate effectively in oral and written form with staff and faculty members, the patient and all members of the health care team.

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3. **Motor:** Motor demands include reasonable endurance, strength and precision. Students should have sufficient motor function to execute movements reasonably required for general care and emergency treatment. Such movements require coordination of both gross and fine muscular activity, equilibrium, and functional use of the senses of touch and vision.
4. **Sensory:** Students need enhanced sensory skills including accuracy within specific tolerances and functional use for laboratory, classroom and clinical experiences. Students who are otherwise qualified but who have significant tactile sensory or proprioceptive disabilities must be evaluated medically. These disabilities include individuals who were injured by significant burns, have sensory motor deficits, cicatrix formation, or have malformations of the upper extremities.
5. **Strength and mobility:** Students must have sufficient posture, balance, flexibility, mobility, strength and endurance for standing, sitting and participating in the laboratory, classroom and clinical experiences.
6. **Intellectual, conceptual, perceptual, integrative and quantitative:** These abilities include reading, writing, measurement, calculation, reasoning, analysis, and synthesis. In addition, students should be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. Problem solving, the critical skill demanded of physicians, requires all of these intellectual abilities.
7. **Behavioral and social:** Students must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, the prompt completion of responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive, and effective relationships. Students must be able to tolerate physically demanding workloads and to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties inherent in clinical problems of patients. Compassion, maturity, honesty, ethics, concern for others, interpersonal skills, interest, and motivation are all personal qualities that will be assessed during the admission and educational processes. Students shall be prepared to endure the physical and emotional demands of the medical profession.

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Category	Standard	Example
Observation	<p>Sufficient uncorrected or corrected visual acuity and color perception to:</p> <p>A. Resolve objects macroscopically as small as 0.2 mm;</p> <p>B. Observe motion and to observe and evaluate the human gait at 20 feet;</p> <p>C. See an object from a background of other objects</p> <p>D. See the difference in objects</p>	<ol style="list-style-type: none"> 1. Locate and identify dissected nerves 2. Evaluate posture, locomotion and movement in a clinical setting 3. Identify landmarks on tympanic membranes 4. Identify materials correctly to be used in laboratories 5. Locate, identify and describe foreign bodies, blood vessels, sutures and skin lesions 6. Observe audiovisual materials on projection or overhead screens during lectures 7. Read printed materials on handouts and tests 8. Locate sections on a slide 9. Identify microphotographic images projected on a screen 10. View a class room visual aid, including motion pictures, at 20 feet. 11. Observe and evaluate the human gait at 20 feet 12. Discriminate body height and depth differences of 2mm and identify anatomic landmarks for symmetry and postural differences visually 13. Differentiate small bacterial colonies from artifacts on agar plates 14. Appreciate fine structures in pathology and other images presented in class and in the textbook.
	<p>Sufficient uncorrected or corrected visual acuity and color perception to resolve objects microscopically</p>	<ol style="list-style-type: none"> 1. Recognize stained bacteria microscopically 2. Observe, manipulate and accurately identify microbiologic cultures 3. Identify normal and pathologic cells and tissues

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Category	Standard	Example
Communication	Possess fluent formal and colloquial oral English skills	<ol style="list-style-type: none"> 1. Demonstrate command of the course material to a professor or attending physician 2. Understand oral lectures, ask questions and understand answers 3. Explain procedures and discuss results with professors and fellow students 4. Explain medical conditions to patients, attending physicians and fellow students 5. Explain procedures and discuss test results on prescribed treatments with patients, attending physicians and fellow students 6. Direct and coordinate activities of nurses, students, assistants, specialists, therapists and other members of the health care team as approved and directed by the attending physician 7. Understand laboratory safety and emergency situation instructions
	<p>Capable of legible handwriting in English</p> <p>Capable of reading English effectively</p> <p>Able to perceive and convey sentiments non-verbally and effectively with patients and all members health care team</p>	<ol style="list-style-type: none"> 1. Complete a written medical history 2. Participate in small group discussions with laboratory partners 3. Prepare classroom reports 4. Prepare accurate and legible documentation of patient history, physical exam, assessment and treatment plan 5. Recognize, understand and respond appropriately to spoken or non-verbal communication of distress or discomfort 6. Understand typed and hand written lecture and laboratory handouts and electronic communications

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Category	Standard	Example
Motor	Possess equilibrium and coordination of gross and fine muscular movements	<ol style="list-style-type: none"> 1. Possess sufficient strength and mobility to provide general care and emergency treatment to patients including CPR, 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 2. Coordinate fine movement of fingertips, palms, and wrists as in elevation of the cranium 3. Manipulate writing instruments and write legibly, completing SOAP* notes, documenting in patient charts and writing prescriptions * Subjective, Objective, Assessment, Plan 4. Stand with limited opportunity for gross movement for a minimum of 2 hours at a time, as necessary for particular medical procedures, such as performance of obstetrical delivery, assistance of surgical delivery, and assistance of surgical procedure 5. Use a computer keyboard and mouse
	Possess sufficient visuo-motor coordination permitting delicate manipulations of specimens, instruments, and equipment	<ol style="list-style-type: none"> 1. Participate in laboratory exercises using microscopes, microbiological cultures and dissection instruments 2. Dissect arteries, vessels and nerves of the brachial plexus 3. Manipulate laboratory materials including reagents and pipettes 4. Suture simple wounds 5. Obtain culture specimens including cerebrospinal fluid as part of a lumbar puncture procedure 6. Perform joint injections

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Category	Standard	Example
Sensory	Possess accurate sense of touch and temperature discrimination	<ol style="list-style-type: none"> 1. Palpate the musculo-skeletal system 2. Perform history and physical examination procedures specific to an individual 3. Perform a bimanual pelvic exam and palpate for ovarian disease 4. Participate in laboratory exercises accurately using and adjusting microscopes, glass slides, inoculating loops, pipettes, microbiological cultures and reagents 5. Palpate distances in depth, elevation and width of body structures within 2 mm of difference 6. Perform intravenous insertion and venipuncture on both basic and difficult models and patients 7. Palpate texture differences, hydration states, fine muscle tension differences, changes in moisture and temperature
	Functional use of hearing	<ol style="list-style-type: none"> 1. The ability to use a stethoscope, recognizing the sound of patient conditions accurately such as a Grade 5 systolic murmur 2. Understand laboratory experience and classroom demonstration with minimal instruction 3. Understand a speaker in a darkened room
	Functional use of vision	<ol style="list-style-type: none"> 1. Recognize structures and patient conditions accurately 2. Interpret laboratory and classroom demonstrations accurately with minimal instruction

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Strength and Mobility	Upright posture, endurance, strength, flexibility, stability and mobility adequate to safely guide, enhance and resist movement of another person, and to perform physical exams	Maintain equilibrium and control movement of self and of a patient in and changing between sitting, standing, prone, lateral recumbent and supine positions while performing neuromuscular diagnosis and osteopathic manipulative treatment
	Sufficient equilibrium, upright posture, mobility and endurance to attend and participate in lectures, examinations and laboratory exercises and patient contact for extended periods of time	<ol style="list-style-type: none"> 1. Tolerate the sitting position long enough to hear a lecture, typically 50 minutes 2. Tolerate the sitting position long enough to take a written examination, 45 minutes to 3 hours 3. Visit patients in clinic and hospital settings including Emergency Room rounds 4. Assist in transfer and osteopathic manipulation of persons weighing 90 kg or more 5. Participate in laboratory exercises lasting 6. as long as 3 hours, requiring frequent movement around the room 7. Attend mandatory classroom events for as long as 2 hours moving, sitting or standing within the room as necessary to participate in problem-based learning groups
Intellectual, Conceptual, Integrative and Quantitative	<p>Apply knowledge, skills and values learned from course work and life experiences to new situations</p> <p>Visualize and recall three-dimensional relationships</p>	<ol style="list-style-type: none"> 1. Perform a history and physical, then develop an appropriate differential diagnosis, assessment and treatment plan 2. Assess and evaluate cases presented in class and on examinations 3. Interpret x-ray and diagnostic imaging studies

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Intellectual, Conceptual, Integrative and Quantitative	To receive, decode, interpret, recall, reproduce and apply information in the cognitive, psychomotor, and affective domains of learning to perceive relationships, solve problems, evaluate work, gauge progress and demonstrate understanding of course material	<ol style="list-style-type: none"> 1. Perform osteopathic or medical evaluation of patient posture and movement including analysis of physiological, biomechanical, behavioral, and environmental factors in a timely manner, consistent with acceptable clinical norms 2. Comprehend oral and written presentations of material and communicate that understanding upon examination in a timely manner, occasionally demonstrating a grasp of the information within the same class period as presented
	Process multifunctional data and sensory input requiring cognitive recall and motor skills rapidly and initiate critical actions	<ol style="list-style-type: none"> 1. Successfully complete objective (true-false, multiple choice, matching, case study) bio-medical science exams designed to assess whether students can apply knowledge learned to new situations 2. Successfully perform problem-solving exercises in the laboratory including the identification of unknowns 3. Interact in group discussions and present and explain answers to worksheets 4. Evaluation of emergency situations including apnea, code management, bleeding and severe trauma, requiring rapid responses such as intubation and medication 5. Diagnose pelvic dysfunction
Behavioral, Professional and Social	<p>Function efficiently in the face of uncertainties inherent in the clinical problems of patients</p> <p>Demonstrate compassion, integrity and concern for others</p>	<ol style="list-style-type: none"> 1. Recognize emergency situations and take appropriate actions 2. Study with, supervise and treat people with diverse values, ethnic backgrounds, social mores, economic stability and personal preferences

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Category	Standard	Example
Behavioral, Professional and Social	Manage priorities successfully, including competing demands and multiple tasks under time constraints	<ol style="list-style-type: none"> 1. Complete exams and other time-sensitive assessments and requirements, including patient care, as scheduled 2. Attend mandatory classes, laboratory sessions and educational programs 3. Maintain passing grades and performance evaluations in extracurricular activities and obligations with academic endeavors 4. Promptly complete all class work and lab responsibilities 5. Promptly complete all responsibilities attendant to the diagnosis and care of patients
	<p>Possess the emotional health required for full use of intellectual abilities</p> <p>Exhibit appropriate behavior, judgment and ethical standards</p> <p>Develop mature and cooperative relationships with all members of the health care team including patients, peers, and faculty and staff members</p> <p>Demonstrate the compassion, integrity, and ability to work effectively with patients and colleagues</p>	<ol style="list-style-type: none"> 1. Active participation with and contribution to didactic and medical learning situations including laboratory team and problem based learning exercises 2. Interact through appropriate electronic, telephone, written and oral communication with faculty, classmates and all members of the health care team 3. Project an image of professionalism, including appearance, dress and confidence 4. Work independently on all projects and examinations assessed individually 5. Maintain alertness and concentration during preceptor and patient encounters and during each class room period (about 50 minutes) 6. Interact professionally, ethically and confidentially with patients 7. Observe instructor, peer, patient and health care team behavioral and environmental factors 8. Control temper and never perpetrate harassment

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Behavioral, Professional and Social	Adapt successfully to changing environments	<ol style="list-style-type: none"> 1. Maintain attention, actively participate and meaningfully contribute to dialog and practical applications in the classroom, small group exercises, laboratory activities and in patient care 2. Plan appropriately for various possible patient care outcomes
	Possess constructive, positive and mature interpersonal skills, interest and motivation	<ol style="list-style-type: none"> 1. Accept criticism and respond with appropriate modification of behavior 2. Timely and adequately respond to personal or academic struggles; seek assistance, practice planning and avoid procrastination
	Touch and be touched, requiring exposure of non-sexual body parts for examination and application of treatment modalities, regardless of age, gender, nationality, religion, race or body size	<ol style="list-style-type: none"> 1. Permit for self and demonstrate on others abdominal, cardiac and neurologic examination 2. Permit for self and demonstrate on others osteopathic manipulation including discernment of tissue texture changes, motion testing of spinal segments and evaluation of extremities and head region

Application Procedures for Accommodations

The institution remains open to the possibilities of human potential and achievement, providing supports for students with disabilities. The Vice President for Student Affairs is responsible for administration of and compliance with the Technical Standards and Accommodations Policy through the Director-Learning Resources. Accepted students and matriculates who have disabilities and are otherwise qualified may request accommodations in writing to the Director-Learning Resources, A.T. Still University, 800 West Jefferson Street, Kirksville, Missouri, 63501.

The Director-Learning Resources will confer with the student and may request documentation and may refer the student for individual assessment by qualified experts. The ATSU-KCOM Technical Standards and Accommodations Committee shall review any requests for accommodations. The Committee determines whether there are

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disabilities as protected by the Americans with Disabilities Act and then decides if reasonable accommodations can be made without fundamentally altering the essential nature of the medical school program or instruction being pursued.

The Committee makes recommendations for or against accommodations to the Director-Learning Resources who then notifies the student and appropriate faculty and staff members who have an educational need to know. The student can appeal the decision in writing within ten days of notification to the Dean, KCOM.