Duke Master of Biomedical Sciences Program Technical Standards

All candidates for the MBS degree must possess the ability to learn, integrate, analyze, and synthesize data. They must have use of the senses of vision, hearing, equilibrium, and smell. Their exteroceptive (touch, movement, stereognosis, and vibratory) senses must be sufficiently intact to enable them to carry out all activities required for a complete biomedical science masters education. Candidates must have motor-function capabilities, physical endurance and the emotional health to meet the program's demands, including training, certification and service as an Emergency Medical Technician-Basic, which may include extended hours of instruction and time in clinical settings, evenings, nights, and weekends.

The study of medical sciences is not a pure intellectual exercise. Rather, a specific set of minimal physical, mental, emotional and social abilities are needed to be a successful student. Students must possess all of the abilities described in the five categories below, with or without reasonable accommodations as determined by the Student Disability Access Office (https://access.duke.edu/students/). To achieve the optimal educational experience, students are required to participate in all phases of the training program. Candidates with disabilities are encouraged to contact the Program and/or the Student Disability Access Office early in the application process to discuss accommodation needs.

The candidate for the MBS degree must possess the following abilities and skills necessary to successfully complete the curriculum:

**Observation:** Candidate must acquire information as presented through demonstrations and experiences in lectures and laboratories. Candidates must be able to evaluate patients accurately and assess their relevant health, behavioral, and medical information. Candidates must be able to obtain and interpret information through a comprehensive assessment of patients, correctly interpret diagnostic representations of patients' physiologic data, and accurately evaluate patients' conditions and responses.

**Communication:** Candidates must exhibit interpersonal skills to enable effective caregiving of patients, including the ability to communicate effectively, with all members of a multidisciplinary health care team, patients, and those supporting patients, in person and in writing. Candidates must be able to clearly and accurately record information and accurately interpret verbal and nonverbal communication.

**Motor Function:** Candidates must perform routine physical examination and diagnostic maneuvers. Candidate must be able to provide general care and emergency treatment for patients and respond to emergency situations in a timely manner. A candidate should have sufficient motor function to elicit information from patients by palpation, auscultation, percussion, and movement of limbs, as well as carry out treatment maneuvers, which may include lifting, transferring of patients, and
assisting during ambulation while assuring their own safety as well as the safety of the patient. A candidate should have motor function sufficient to execute movements reasonably required to provide general care and emergency treatment to patients. Such skills require coordination of gross and fine muscular movements, equilibrium, and sensation. Candidates must meet applicable safety standards for the environment and follow universal precaution procedures.

**Intellectual-Conceptual, Integrative, and Quantitative Abilities:** Candidate must effectively interpret, assimilate, and understand the complex information required to function within the MBS curriculum. Problem solving is a critical skill that requires conceptual, integrative, and quantitative thinking abilities. The candidate must also be able to comprehend three-dimensional relationships, the spatial and functional relationships of structures and to analyze and apply this information for problem solving and decision-making. Candidate must be able to effectively participate in individual, small-group, and lecture learning modalities in the classroom, clinical, and community settings. Candidate must be able to learn, participate, collaborate, and contribute as part of a team. They must have the ability to organize, prioritize, analyze and evaluate detailed and complex information individually, in small groups, in clinical settings and within a limited time frame both in person and via remote technology.

**Behavioral and Social Skills:** Candidates must exercise good judgment and promptly complete all responsibilities attendant to the diagnosis and care of patients. A candidate must have the emotional health to fully use their intellectual ability, exercise good judgment, and to complete all responsibilities attendant to the evaluation and treatment of patients. They must be honest, able to self-assess own mistakes, accept criticism and assume responsibility for maintaining professional behavior. The skills required include the ability to effectively handle and manage heavy workloads, function effectively under stress, adapt to changing environments, display flexibility, and learn to function in the face of the uncertainties inherent in the clinical problems of patients.

A candidate must be able to develop mature, sensitive, and effective relationships with faculty, patients, families, caregivers and colleagues. A candidate must be able to tolerate physical and emotional stress and continue to function effectively. A candidate must possess qualities of adaptability and flexibility and be able to function in the presence of uncertainty. They must have a high level of compassion for others, motivation to serve, integrity, and a consciousness of social values. A candidate must possess sufficient interpersonal skills to interact positively with people from all levels of society, all ethnic backgrounds, and all belief systems.

Candidates must be able to satisfy the above requirements with or without reasonable accommodations. For questions, see the Duke Accessibility website.