

ESSENTIAL FUNCTION / TECHNICAL STANDARDS FOR GSBS

Technical Standards refer to non-academic requirements that are essential for meeting the academic requirements of the program. Within any area of specialization, students must demonstrate competence in those intellectual and physical tasks that together represent the fundamentals of biomedical research in their chosen discipline. Enrollment is contingent on the result of certain medical laboratory test (e.g., TB) and fulfillment of immunization requirements. For details see the UMDNJ website: http://www.umdnj.edu/oppmweb/Policies/HTML/StudentServices/00-01-25-40_00.html

The Ph.D. and M.S. degree programs at the UMDNJ-Graduate School of Biomedical Sciences require a laboratory-based research dissertation. Granting of these degrees implies that the recipient has demonstrated a base of knowledge in the field and the ability to independently apply that knowledge to solve a particular problem by forming hypotheses, designing and conducting experiments, interpreting the experimental results, and communicating the results and their interpretation to the scientific community. Thus, a candidate for the Ph.D., M.S., or MBS degree in the biomedical sciences must possess abilities and skills that allow for observation, intellectual and conceptual reasoning, motor coordination, and communication. The use of a trained intermediary is not acceptable in many situations in that a candidate's judgment will be based on someone else's power of selection and observation.

A student whose behavior or performance raises questions concerning his or her ability to fulfill the essential functions may be required to obtain evaluation and/or testing by a health care provider designated by the School, and to provide the results to the Campus Student Health Service for the purpose of determining whether the student is fit to pursue the educational program. If the student is deemed fit to pursue the program, the School reserves the right to require actions recommended by the health care provider, including further testing, counseling, monitoring, leave of absence, etc.

Observation

The candidate must be able to acquire knowledge by direct observation of demonstrations, experiments, and experiences within the laboratory and instructional setting. Examples are physiological or pharmacological responses in animals, studies of microbiological cultures and organisms, identification of normal and abnormal cells or tissues through a microscope, and interpretation of results obtained on various instrumentation.

Intellectual/Conceptual Abilities

The candidate must be able to measure, calculate, analyze, reason, integrate and synthesize information to solve problems.

Motor Skills

The candidate must possess motor skills necessary to perform procedures required for experimentation within the chosen discipline. These skills may include, but are not limited to, surgery in animals, handling of animals, transfer of microorganisms to various mediums, preparing chemical and often toxic materials and solutions, preparation of anatomical specimens for microscopic examination, manipulating electronic and other complex equipment. Such actions require coordination of muscular movements and functional use of the senses of touch and vision.

Communication

The candidate must be able to communicate and discuss his or her experimental hypotheses and results to the scientific community, both in scientific journals or directly at scientific meetings, seminars, or in the laboratory to the research team.

Behavioral and Social Attributes

The candidate must possess the emotional and mental health required for full utilization of his or her intellectual abilities, the exercise of good judgment, the prompt completion of responsibilities inherent in managing a scientific laboratory, the ability to function under the stress inherent in biomedical research, and the ability to understand and comply with ethical standards for the conduct of research.