## Mayo Clinic School of Health Sciences Echocardiography Program

## **Technical Performance Standards**

Theme	General	Specific
Visual	A candidate must be able to acquire a defined level of required information as presented through demonstrations and experiences in the basic and clinical sciences.	<ul> <li>The candidate must be able to learn to perform visual examinations to differentiate subtle variations in color, shape and general appearance.</li> <li>The candidate must be able to accurately observe patients from a distance or close at hand, correctly read digital, analogue or graphic gauges, scales and monitors, and recognize biohazardous fluids. The candidate must be able to see gray-scale and color images and Doppler waveforms on ultrasound monitors.</li> <li>The candidate must also possess the visual acuity to read or view various forms of documentation including records, charts, images and handwritten notation.</li> </ul>
Hearing	Hearing abilities adequate to provide safe and efficient patient care and to effectively communicate with health care personnel.	<ul> <li>An auditory capacity ensuring patient identification (ability to hear patients' state name/ date of birth within noisy environments) is correctly performed according to institutional policy.</li> <li>Interact with healthcare faculty, patients and family in person and via the telephone.</li> <li>Hear various equipment sounds such as alarms, emergency signals and instrumentation in noisy environments such as, but not limited to, Emergency Department and/or during a code-situation.</li> <li>Capable of auditory discernment of Doppler sounds.</li> </ul>
Motor Skills/Mobility	The candidate should have sufficient motor functions such that they are able to execute movements required to provide general care and treatment to clients in all health care settings within a specified amount of time.	<ul> <li>The candidate must be able to perform basic life support (including CPR), transfer and position patients and position and re-position self around patients.</li> <li>The candidate must also be able to position and operate equipment typically found in the health care environment (for example: IV pumps, electric beds, oxygen tanks, wheel chairs, ultrasound scanning equipment, etc.).</li> <li>Demonstrate the ability to manipulate multiple objects simultaneously, such as an ultrasound transducer and keyboard or touch panel</li> <li>Utilize computer equipment such as keyboard, mouse and related equipment.</li> <li>Such actions may require standing for prolonged periods of time and coordination of both gross and fine muscular movements, including equilibrium and functional uses of senses to perform patient care procedures.</li> </ul>

Communication	The candidate must be able to communicate clearly and effectively with a degree of sensitivity and cultural appropriateness with patients, parents and/or guardians; establish good rapport, convey or exchange information at a level allowing development of a health history; identify problems presented; explain alternative solutions; and give directions during treatment and post-treatment. Communication includes oral and written modes.	•	A candidate must have sufficient facility with English to retrieve information from literature, computerized databases and lectures and to communicate concepts on written exams and patient charts.  Patients, faculty, students, and staff must be able to easily understand the candidates' oral and written communication in order to effectively evaluate performance and to work collaboratively in the care of patients  Have the fluency to read and comprehend the English language necessary to understand caregivers' written and/or electronic orders, and any signage related to patient care.
Interpersonal Behavior and/or Social Skills	A candidate must possess the emotional health and maturity required for full utilization of his or her intellectual abilities, the exercise of good judgment, maintenance of patient confidentiality, 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, faculty, staff and students.	•	The candidate must be able to tolerate physically, mentally and emotionally demanding workloads, function effectively under stress, adapt to changing environments, display flexibility and learn to function in the face of uncertainties inherent in the clinical problems of patients.  Compassion, integrity, concern for others, interpersonal skills, interest, and motivation are all personal qualities that will be assessed during the admission and educational processes. Further, a candidate must be able to manage apprehensive patients with a range of moods and behaviors in a tactful, culturally sensitive, congenial, personal matter so as not to alienate or antagonize them. A candidate must reasonably be expected to accept criticism and respond by appropriate modification of behavior.
Cognitive /Intellectual	A candidate must be able to measure, calculate reason, analyze, integrate, and synthesize information.	•	The candidate must be able to self-organize his/her time, independently manage multifaceted demands and schedules.  The candidate must be able to quickly read and comprehend extensive written materials.  The candidate must be able to comprehend and apply didactic concepts and engage in critical thinking in the classroom, lab and clinical setting all in a timely manner. This involves physiologic measurements, mathematical computation, information gathering, interpretation and analysis of data, and problem solving  The candidate must be able to comprehend three-dimensional relationship and to understand the spatial relationships of structures.