Essential Standards for Matriculation, Promotion, and Graduation

I. General Issues

A. Overview

Medical education requires that the accumulation of scientific knowledge be accompanied by the simultaneous development of specific skills and other competencies. Because the Geisel School of Medicine has a responsibility to society to graduate the best possible physicians:

- Admission to Geisel is offered to applicants who present outstanding qualifications for the study and practice of medicine.
- Successfully completing the entire medical school’s curriculum is necessary for all students.
- All students must meet both our Academic Standards and Standards for Capacity in order to progress through Geisel and graduate.

*Academic Standards* refer to acceptable demonstrations of mastery in various disciplines, before matriculation and after, as judged by faculty members, examinations, and other measurements of performance. Acceptable levels of mastery are required in *eight broad areas of competency* once a student matriculates at Geisel:

1. Medical Science
2. Clinical Care
3. Communication Skills
4. Professionalism
5. Evaluation and Improvement in Medicine
6. Collaboration and Teamwork
7. Population Health
8. Personal, Professional, and Leadership Development
Academic standards, and the related grading systems, are addressed in detail during each course and clerkship. Any student who has specific questions about performance requirements, may speak with course and clerkship directors. Examples accompanying each Standard for Capacity in Section II, however, should provide an accurate sense of expected performance at Geisel.

*Standards for Capacity*, similar to *technical standards*, refer to the essential aptitudes and abilities that allow medical students (and physicians) to perform in the vast array of requisite ways summarized by the eight areas of competency above. "Standards for Capacity" may sound unfamiliar, even though the abilities they represent are extremely important in the field of medicine. Those abilities are the foundation for academic success at Geisel, and for the eventual practice of medicine itself. Our Standards for Capacity are described in detail in Section II.

All graduates of the Geisel School of Medicine at Dartmouth must have achieved the eight competencies to function in a wide variety of clinical situations and render a wide spectrum of patient care. Historically, undergraduate medical education in the United States has been structured as a broad general training, which is intended to produce "undifferentiated physicians". Our academic standards and Standards for Capacity are based on that model, and whereas a truly undifferentiated physician may not be achievable, our standards attempt to insure capable, well-rounded future clinicians. *

Without the essential capacities, students cannot fulfill the requirements of all the courses and clerkships at Geisel. Meeting Geisel’s Standards for Capacity, as detailed in Section II is, therefore, required for 1) matriculation (insomuch as the abilities can reasonably be determined before matriculation), 2) subsequent promotion from term to term, and 3) graduation from the Geisel School of Medicine.

Reading this document to better understand what is expected at Geisel is important for all applicants and current students.

* This model does not necessarily mean that all Geisel School of Medicine graduates, given their individual strengths and preferences, are equally suited for every postgraduate training program. Instead it means that all graduates have a strong baseline education on which to draw in a wide variety of situations.

**B. Disabilities**

It is our experience that a number of individuals with disabilities (as defined by Section 504 of the Rehabilitation Act and the Americans with Disabilities Act, as Amended) are qualified to study and practice medicine with the use of reasonable accommodations. To be qualified for the study of medicine at Geisel, those individuals must be able to meet
both our academic standards and the standards for capacity, with or without approved accommodation. Accommodation is viewed as a means of helping students with disabilities meet essential standards, not to circumvent them, and ensure equal opportunity as much as possible.

C. The Use of Auxiliary Aids and Intermediaries

Qualified students with documented disabilities are readily provided with reasonable accommodations at the Geisel School of Medicine, and those accommodations sometimes involve an intermediary or an auxiliary aid. However, no disability can be reasonably accommodated at Geisel with an auxiliary aid or intermediary that provides cognitive support or medical knowledge, substitutes for essential clinical skills, or supplements clinical and ethical judgment. That is to say, accommodations cannot eliminate essential program elements.

Some intermediaries that may be acceptable include sign language interpreters - provided the interpreters offer only translation, and do not perform selective, analytic, interpretive, or integrative functions for the student - or transcriptionists who provide a similar function. In this way, a deaf student is simply enabled to "listen", but is still responsible for essential communication elements of the curriculum. (A deaf student would still need to communicate fluently in written English without an intermediary.) Similarly, a paraplegic student might be able to use aids such as a standing wheelchair or a variable - height table in order to examine a patient.

The faculty believes that visual impairments severe enough to require a scientifically or medically trained intermediary cannot be accommodated at Geisel. Certainly there are advances in technology all the time, and at some point there may be acceptable accommodations for blind students, but an intermediary that would have to select and interpret visual information (e.g. slide configurations, clinical presentations, etc.), would constitute cognitive support and/or a supplement to clinical judgment. This kind of assistance would also, undoubtedly, depend on medical/scientific knowledge to some extent. Use of this type of intermediary would represent a fundamental alteration to the medical program. Reliance on an intermediary trained to perform physical exams for a student with a severe physical disability would also be unacceptable for the same reasons.
II. Standards for Capacity

Students at the Geisel School of Medicine at Dartmouth must have capacities/abilities in five broad areas:

A. Perception/observation
B. Communication
C. Motor/tactile function
D. Cognition
E. Professionalism (Mature and Ethical Conduct)

A. Perception/Observation

Students must be able to accurately perceive, by the use of senses and mental abilities, the presentation of information through:

- Small group discussions and presentations
- Large-group lectures
- One-on-one interactions
- Demonstrations
- Laboratory experiments
- Patient encounters (at a distance and close at hand)
- Diagnostic findings
- Procedures
- Written material
- Audiovisual material

Examples

Representative examples of materials/occasions requiring perceptual abilities beginning in years 1 and 2 include, but are not limited to: books, diagrams, discussions, physiologic and pharmacological demonstrations in animals, microbiologic cultures, gross and microscopic studies of organisms and tissues, chemical reactions and representations, photographs, x-rays, cadaver dissections, live human case presentations, and patient interviews.

Additional examples from year 3 and 4 include, but are not limited to: physical exams; rectal and pelvic exams; examinations with stethoscopes, otoscopes, fundoscopes, sphygmomanometers, and reflex hammers; verbal communication and non-verbal cues (as in taking a patient's history or working with a medical team); live and televised
surgical procedures; childbirth; x-rays, MRIs, and other diagnostic findings; online computer searches and virtual clinical cases.

**B. Communication**

Students must be able to communicate skillfully (in English) with faculty members, other members of the healthcare team, patients, families, and other students, in order to:

- Elicit information
- Convey information
- Clarify information
- Create rapport
- Develop therapeutic relationships
- Demonstrate competencies

*Examples*

Examples of areas in which skillful communication is required beginning in years 1 and 2 include, but are not limited to: answering oral and written exam questions, eliciting a complete history from a patient, presenting information in oral and written form to preceptors, participating in sometimes fast-paced small-group discussions/interactions, participating in group dissections, participating in pathology labs.

Additional examples of areas in which skillful communication is required in years 3 and 4 include, but are not limited to: participating in clinical rounds and conferences; writing patient H&Ps (histories and physicals); making presentations (formal and informal) to physicians and other professionals; communicating daily with all members of the healthcare team; talking with patients and families about medical issues; interacting in a therapeutic manner with all patients, including psychiatric patients; providing educational presentations to patients and families; participating in videotaped exercises and synchronous distance learning; interacting with and responding to clerkship administrators and directors; writing notes and papers and completing assignments on a web-based educational platform.

**C. Motor/Tactile Function**

Students must have sufficient motor function and tactile ability to:

- Attend (and participate in) all classes, groups, and activities which are part of the curriculum
- Read and write
- Examine patients
- Do basic laboratory procedures and tests
- Perform diagnostic procedures
- Provide general and emergency patient care
- Function in outpatient, inpatient, and surgical venues
- Perform in a reasonably independent and competent way in all clinical environments
- Demonstrate competencies

**Examples**

Examples of activities/situations requiring students' motor/tactile function beginning in years 1 and 2 include, but are not limited to participating in classes, small groups, patient presentations, review sessions, dissections, laboratory work, and microscopic investigations; using a computer; performing a complete physical exam - including observation, auscultation, palpation, percussion, and other diagnostic maneuvers; performing simple lab tests; using light microscopes; performing cardiopulmonary resuscitation.

Additional examples of experiences requiring motor/tactile function in years 3 and 4 include, but are not limited to accompanying staff on rounds and conferences; competently performing specific procedures, such as, venipunctures, endotracheal intubations, Foley catheter insertions, and nasogastric tube insertions; taking overnight call in the hospital; performing physical, neurological, gynecological, pediatric, and obstetric examinations (with the appropriate instruments); dealing with agitated patients in emergency situations; maintaining appropriate medical records; acting as second assistant in the OR (retracting, suturing, etc.); wearing appropriate equipment, such as a gloves, gown, and mask, as called for by the clinical situation.

Students in Years 1 through 4 will be responsible for providing or arranging their transportation between their residence and the Geisel School of Medicine locations at a driving distance throughout NH and VT for assigned clerkships and courses.

**D. Cognition**

Students must be able to demonstrate higher-level cognitive abilities, which include:

- Rational thought
- Measurement
- Calculation
- Visual-spatial comprehension
Examples of applied cognitive abilities beginning in years 1 and 2 include, but are not limited to: understanding, synthesizing, and recalling material presented in classes, labs, small groups, patient interactions, and meetings with preceptors; understanding 3-dimensional relationships, such as those demonstrated in the anatomy lab; successfully passing oral, written, and laboratory exams; understanding ethical issues related to the practice of medicine; engaging in problem solving, alone and in small groups; interpreting the results of patient examinations and diagnostic tests; analyzing complicated situations, such as cardiac arrest, and determining the appropriate sequence of events to effect successful treatment; working through genetic problems.

Additional examples of required cognitive abilities in years 3 and 4 include, but are not limited to: integrating historical, physical, psychosocial, and ancillary test data into differential diagnoses and treatment plans; understanding indications for various diagnostic tests and treatment modalities – from counselling to medication to surgery; understanding methods for various procedures, such as lumbar punctures and inserting intravenous catheters; being able to think through medical issues and exhibit sound judgment in a variety of clinical settings, including emergency situations; identifying and understanding classes of psychopathology and treatment options; making concise, cogent, and thorough presentations based on various kinds of data collection, including web-based research; knowing how to organize information, materials, and tasks in order to perform efficiently on service; understanding how to work and learn independently; understanding how to function effectively as part of a healthcare team.
E. Professionalism: (Mature and Ethical Conduct)

Students must be able to:

- Consistently display integrity, honesty, empathy, caring, fairness, respect for self and others, diligence, and dedication
- Promptly complete all assignments and responsibilities attendant to the diagnosis and care of patients (beginning with study in the first year)
- Communicate with, examine, and provide care for all patients—including those whose gender, ethnicity, culture, sexual orientation, or spiritual beliefs are different from students' own
- Develop mature, sensitive, and effective relationships, not only with patients but with all members of the medical school community and healthcare teams
- Maintain sobriety in all academic and clinical environments, and refrain from the illegal use of substances at all times
- Abide by all state, federal, and local laws, as well as all Geisel and Dartmouth-Hitchcock Medical Center codes of conduct
- Tolerate physically, emotionally, and mentally demanding workloads
- Function effectively under stress, and proactively make use of available resources to help maintain both physical and mental health
- Adapt to changing environments, display flexibility, and be able to learn in the face of uncertainty
- Take responsibility for themselves and their behaviors

Examples

Examples of professional behavior beginning in years 1 and 2 include, but are not limited to showing up for required experiences on time and prepared; handing in assignments on time; refraining from plagiarizing or cheating; treating faculty, staff, and other students with respect; making an effort to understand prejudices and preconceptions that might affect patient interactions or collegial relationships (especially in the areas of race and ethnicity, sexual orientation, gender, disability, age, and religious difference); developing successful working relationships with preceptors, staff, and peers by accepting constructive feedback.

Additional examples of professional behavior in years 3 and 4 include, but are not limited to maintaining a professional demeanor on service (e.g. white coat, name tag, appropriate attire, neat appearance, respectful speech, sobriety); representing oneself accurately; appreciating and preserving patient confidentiality; responding sensitively to patients' social and psychological issues; understanding social biases and stigmas, and
not reinforcing them; developing empathic listening skills; advocating for patients when appropriate; using hospital/clinic resources responsibly; showing up prepared and on time for rounds, lectures, conferences, and procedures; getting advice when handling ethical dilemmas; taking constructive feedback from attending physicians and residents with open-mindedness and the intention to improve; contributing to the effectiveness, efficiency, and collegiality of healthcare teams.

Reviewed by: Advisory Panel on Technical Standards for Geisel
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Approved by: Admissions Committee
Committee for Students with Disabilities
Deans Advisory Board
Medical Education Committee

Date: