

## **TECHNICAL STANDARDS FOR STUDENTS IN THE PHYSICIAN ASSISTANT PROGRAM**

### **Technical Standards:**

The Physician Assistant Certificate/Master of Health Science degree signifies that the holder is prepared for entry into the practice of medicine. It follows that the graduate must have the knowledge, skills and abilities to function in a broad variety of clinical situations and to render a wide spectrum of patient care. It is essential for good patient care that the University require minimum standards for the education of the physician assistant. In the education of physician assistant students, the University must judge not only the scholastic accomplishments but also considers the student's current physical and emotional status, immunization and titer status, cumulative and progressive disability, "medical condition(s)", and drug-induced impairments that may pose obstacles to the safe application of the student's knowledge and skills or prevent effective interaction with patients.

"Medical condition" includes physical, physiological, mental or psychological conditions or disorders, such as, but not limited to chronic and/or uncorrected orthopedic, visual, speech, or hearing impairments, seizure disorders, multiple sclerosis or other neuromuscular disorders, behavioral health illness, dementia, drug addiction and alcoholism.

The PA student must follow the University and program health requirement policies including being able to prove adequate and appropriate immunization and titer status.

Physician assistant students are reviewed individually and on a case-by-case basis using the factors listed below. In accordance with University policy and as delineated by Federal and Connecticut law, the University does not discriminate in admissions, educational programs or employment against any individual on the basis of that individual's disability and will make good faith efforts at providing reasonable accommodation as required.

Quinnipiac University Physician Assistant students must possess the intellectual ability to learn, integrate, analyze and synthesize data. They must have functional use of the senses of vision, hearing, smell and equilibrium. Their exteroceptor (touch, pain and temperature) and proprioceptor (position, pressure, movement, stereognosis and vibratory) senses must be sufficiently intact to enable them to carry out all the activities required to complete the activities described below. PA students must have sufficient motor function capabilities to meet the demands of the PA program and the demands of the total patient care.

Students in the Quinnipiac University Physician Assistant Program must possess ability, aptitude and skills in the following areas: observation, communication, motor, intellectual-conceptual-integrative, behavioral, social and physical. PA students must be able to meet the requirements and worker attributes of a Physician Assistant as defined by the U.S. Department of Labor, Employment and Training Administration's Occupational Information Network (O\*NET) Handbook 2021 edition (updated every five years).

**Observation:**

The PA student must be able to observe and actively participate in demonstrations and experiments in the basic sciences, visual presentations in lectures and laboratories, laboratory diagnostic procedures, and microscopic studies of tissues/fluids in normal and pathologic states in the same manner as required in clinical practice. The PA student must be able to observe a patient accurately and completely at a distance and at a close range (within a few feet of the observer). Observation necessitates the functional use of the sense of vision and somatic sensation and is enhanced by a sense of smell.

**Communication:**

The PA student must be able to communicate effectively in order to elicit information, perceive non-verbal communication, describe changes in mood, activity and posture. The PA student must demonstrate active listening and be able to communicate effectively and sensitively with patients. They must be able to listen to and understand information and ideas as well as express and exchange ideas presented through spoken words and sentences. The PA student must demonstrate excellent verbal and written communication in the English language. Communication includes not only speech but also reading and writing. Communication in oral and written form with the health care team must be effective and efficient.

As defined by the Dictionary of Occupational Titles (DOT), the PA student must be able to meet the following general standards. Reading: Read literature, books and play reviews, scientific and technical journals, abstracts, financial reports, and legal documents. Writing: write novels, plays, editorials, journals, speeches, manuals, critiques, poetry and songs. Speaking: conversant in the theory, principles and methods of effective and persuasive speaking, voice and diction, phonetics and discussion and debate (DOT Language Development Level 05).

**Motor:**

The PA student must have sufficient motor function to elicit information from patients by palpation, auscultation, percussion and other diagnostic maneuvers. The PA student must possess sufficient motor function to be able to document and record information elicited from patients. The PA student must be able to carry out basic laboratory tests (urinalysis, complete blood count, wet mount, gram stain, etc.) carry out diagnostic and therapeutic procedures (phlebotomy, venipuncture, injections, placement of catheters, IVs and tubes), and read electrocardiograms and x-rays. The PA student must have motor function including arm-hand steadiness sufficient to execute motor movements reasonably required to provide general care and emergency treatment for patients. Examples of emergency treatment reasonably required of a physician assistant are cardiopulmonary resuscitation, the administration of intravenous medications, the application of pressure to arrest bleeding, the opening of obstructed airways, the suturing of wounds, the application of casts and splints and the performance of obstetrical maneuvers. Such skills require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.

**Intellectual-Conceptual, Integrative and Quantitative Abilities:**

These abilities include measurement, calculation, reasoning, analysis and synthesis. Problem identification and problem solving, the critical skills demanded of PA's require all these abilities. The PA student must possess sufficient intellectual capacity to gather and identify essential information. They must demonstrate the ability to combine evaluation and reasoning with information and data to make decisions and solve problems. They must also be able to tell when something is wrong or likely to go wrong.

The PA student must also demonstrate inductive reasoning. They must be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. This includes the ability to read and interpret charts and graphs and the ability to use a microscope. The PA student must possess sufficient intellectual capacity and maturity to fulfill the curricular requirements of the various basic medical science and clinical courses. They must demonstrate the ability to collect, synthesize and analyze complex medical and laboratory data and verbal information to reach logical conclusions. The PA student must demonstrate the ability to read and comprehend technical materials, medical and/or laboratory reports and medical text and journals to define complex problems and prepare solutions. The PA student must be able to use scientific methods to solve problems and apply knowledge of biomedical principles to the process of information gathering. They must possess critical thinking skills that allow them to use logic and analysis to identify the strengths and weaknesses of different approaches. They must be able to identify and integrate findings pertinent to the process of problem identification in order to formulate and implement adequate and appropriate diagnostic and/or therapeutic plans.

As defined by the Dictionary of Occupational Titles (DOT), the PA student must be able to deal with a system of real numbers; linear, quadratic, rational, exponential, logarithmic, angle and circular functions and inverse functions related algebraic solution of equations and inequalities; limits and continuity; and probability and statistical inference. Deductive axiomatic geometry, plane and solid and rectangular coordinates. Practical application of fractions, percentages, ratios and proportion, measurement, logarithms, slide rule, practical algebra, geometric construction and essentials of trigonometry (DOT Mathematical Development Level 04).

**Behavioral and Social Attributes:**

The PA student must possess the emotional and mental health required for full utilization of his/her intellectual abilities, the exercise of good judgment, 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. The PA student must be able to tolerate physically and mentally taxing workloads, effectively carry out responsibilities and to function effectively under stress. They must possess sufficient emotional stability to withstand stress, uncertainties and changing circumstances that characterize the dependent practice of medicine. They must possess social perceptiveness and be aware of other's reactions and understand why they react the way they do. The PA student must be able to adapt to changing environments, to display flexibility and to learn to function in the face of uncertainty inherent in the clinical problems of many patients. The PA student must possess the physical and mental capacity to meet all of the program's academic standards (classroom and clinical). The PA student must be able to work with and cooperate with faculty, students, staff, preceptors, healthcare professionals, the public and employees at all levels. The PA student must be capable of developing constructive and cooperative working relationship with others. They must be capable of working directly with the public.

Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that are assessed during the PA education process.

### **Physical Demands:**

The U.S. Dictionary of Occupational Titles (DOT) defines the physical demands strength rating as the estimated overall strength requirement of the job. It represents the strength requirements which are considered to be important for average, successful work performance. The strength rating is expressed by one of five terms and the PA profession is considered (L), light work. The PA student must possess the physical ability to learn and implement the various technical skills required by the program. The PA student must possess an adequate range of body motion and mobility, with or without accommodation to perform the following essential functions: prolonged periods of sitting and/or standing, occasional bending and stooping and the ability to lift and carry books and other items such as medical instruments weighing up to ten (10) pounds with or without accommodation. They must be able to exert up to twenty (20) pounds of force occasionally, and/or up to ten (10) pounds of force frequently, and/or a negligible amount of force constantly (constantly is defined as an activity or condition that exists 2/3 or more of the time) to lift, carry, push or pull or otherwise move objects including the human body. Physical demand requirements are in excess of those for sedentary work. Light work requires walking or standing to a significant degree but may also involve sitting for prolonged periods of time.

### **Ability to Practice Medicine:**

In accordance with O\*NET and The Competencies for the Physician Assistant Profession, the PA student must demonstrate the ability to practice medicine. The ability to practice medicine is to be construed to include all of the following:

- The cognitive capacity to make appropriate clinical diagnoses and exercise reasonable medical judgments in a timely manner and to learn and keep abreast of medical developments;
- The ability to apply principles of logical or scientific thinking, to define problems, collect data, establish facts and draw valid conclusions. Interpret an extensive variety of technical instructions in mathematical or diagrammatic form. Deal with several abstract and concrete variables. (DOT Reasoning Development Level 05);
- The ability to communicate those judgments and medical information to patients and other healthcare providers with or without the use of aids or devices, such as a voice amplifier and;
- The physical and mental capability to fully perform medical tasks including but not limited to: physical examinations, surgical procedures, laboratory procedures and other technical skills in a time efficient manner without limitations, with or without the use of simple aids or devices (ex: corrective lenses, hearing aids, or other assistive devices) to ensure patient safety.

### **References**

1. National Center for O\*NET Development. O\*NET OnLine, sponsored by the U.S. Department of Labor, Employment & Training Administration. <https://www.onetonline.org/link/summary/29-1071.00>
2. U.S. Dictionary of Occupational Titles (DOT) – Physician Assistant <https://occupationalinfo.org/>
3. ARC-PA, NCCPA, PAEA, AAPA. Competencies for the Physician Assistant Profession. 2021. <https://www.aapa.org/download/90503/>