Functional Abilities and Attributes for NTC’s Radiography Program

The following is a list of functional skills and abilities necessary to practice as a radiographer. If you feel lacking in any of these areas and require outside assistance in order to succeed, contact the Center for Students with Disabilities to receive assistance.

**Gross Motor Skills:**
- Move within confined spaces
- Maintain balance in multiple positions
- Reach above shoulders (e.g., IV poles, x-ray tubes)
- Reach below waist (e.g., plug electrical appliance into wall outlet)
- Reach out front

**Fine Motor Skills:**
- Pick up objects with hands
- Grasp small objects with hands (e.g., IV tubing, pencil)
- Write with pen or pencil
- Key/type (e.g., use a computer)
- Pinch/pick or otherwise work with fingers (e.g., manipulate a syringe)
- Twist (e.g., turn objects/knobs using hands)

**Physical Endurance:**
- Stand (e.g., at client side during surgical or radiographic procedures)
- Sustain repetitive movements (e.g., CPR)
- Maintain physical tolerance (e.g., work on your feet a minimum of 8 hours)

**Physical Strength:**
- Push and pull 50 pounds (e.g., position client, move equipment)
- Support 50 pounds of weight (e.g., ambulate client)
- Lift 50 pounds (e.g., pick up a child, transfer a client, bend to lift an infant or child)
- Carry equipment/supplies
- Squeeze with hands (e.g., operate fire extinguisher)

**Mobility:**
- Twist, bend, stoop and squat
- Move quickly (e.g., response to an emergency)
- Climb stairs
- Walk

**Hearing:**
- Hear normal speaking-level sounds (e.g., person-to-person report)
- Hear faint voices
- Hear faint body sounds (e.g., blood pressure sounds, assess placement of tubes)
- Hear in situations when not able to see lips (e.g., when masks are used)
- Hear auditory alarms (e.g., monitors, fire alarms, call bells)

**Visual:**
- See objects up to 20 inches away (e.g., information on computer screen, skin conditions)
- See objects up to 20 feet away (e.g., client in room)
- Use depth perception
- Use peripheral vision
- Distinguish color and color intensity (e.g., color codes on supplies, flushed skin/paleness)

**Smell:**
- Detect odors (e.g., foul drainage, alcohol breath, smoke, gasses, or noxious smells)

**Reading:**
- Read and understand written documents and digital displays (e.g., charts, graphs)
**Tactile:**
- Feel vibrations (e.g., palpate pulses)
- Detect temperature (e.g., skin, solutions)
- Feel differences in surface characteristics (e.g., skin turgor, rashes)
- Feel differences in sizes, shapes (e.g., palpate vein, identify body landmarks)
- Detect environmental temperature

**Environment:**
- Tolerate exposure to allergens (e.g., latex gloves, chemical substances)
- Tolerate strong soaps and odors

**Math:**
- Comprehend and interpret graphic trends
- Calibrate equipment
- Convert numbers to and from metric, apothecaries, and American systems (e.g., dosages)
- Tell and Measure time (e.g., count duration of contractions, CPR, etc.)
- Count rates (e.g., drips/minute, pulse)
- Read and interpret measurement marks (e.g., measurement tapes and scales)
- Add, subtract, multiply, and or divide whole numbers
- Compute fractions and decimals (e.g., medication dosages)
- Document numbers in records (e.g., charts, computerized databases)

**Emotional Stability:**
- Establish professional relationships
- Provide client with emotional support
- Adapt to changing environment/stress
- Deal with the unexpected (e.g., client condition, crisis)
- Focus attention on task
- Cope with own emotions
- Perform multiple responsibilities concurrently
- Cope with strong emotions in others (e.g., grief)

**Analytical Thinking:**
- Transfer knowledge from one situation to another
- Process and interpret information from multiple sources
- Analyze and interpret abstract and concrete data
- Evaluate outcomes
- Problem solve
- Prioritize tasks
- Use long-term and short-term memory

**Critical Thinking:**
- Identify cause-effect relationships
- Plan/control activities for others
- Synthesize knowledge and skills
- Sequence information
- Make decisions independently
- Adapt decisions based on new information

**Interpersonal Skills:**
- Establish rapport with individuals, families, and groups
- Respect/value cultural differences in others
- Negotiate interpersonal conflict

**Communication Skills:**
- Teach (e.g., client/family about health care)
- Influence people
- Direct/manager/delegate activities of others
- Speak and write English
- Listen/comprehend spoken/written word
- Collaborate with others (e.g., health care workers, peers)
- Manage information