**Springfield Technical Community College**

**School of Health and Patient Simulation**

**Technical Standards**

**Essential Skills for the Radiography Program**

**Radiography involves the provision of direct care for individuals and is characterized by the application of verified knowledge in the skillful performance of radiological technical functions. Therefore, all applicants should possess and/or be able to:**

**COMMUNICATION (Verbal and Written)**

1. Communicate in English effectively and professionally with patients and their families, medical staff, clerical staff and providers.
2. Give clear verbal commands to patients who are positioned for radiographic examinations at distances of 10-15 feet from the control area.
3. Write legibly in clear and effective English using correct grammar, punctuation and spelling
4. Quickly and accurately comprehend and follow verbal instructions in English
5. Quickly and accurately read, comprehend and follow written instructions in English
6. Actively participate in group discussions
7. Use communication equipment – telephone, computer, other device used for communication

**PHYSICAL SKILLS**

1. Possess fine and gross skills sufficient to handle equipment and provide safe and effective patient care.
2. Exert maximum physical force to lift, push, pull or carry objects up to 50 pounds (beds, patients, or any other type of equipment such as c-arms.)
3. Move quickly, freely and safely around the assigned work area and patient care settings
4. Remain standing up to 8 or more hours
5. Reach above shoulder level (to manipulate equipment)
6. Reach and adjust the x-ray tube, which is at a height of 72-80 inches from the floor.
7. Reach below waist level (to manipulate equipment)
8. Move upper and lower extremities, back, hips, and knees without restriction - bend, stoop, and squat
9. Keep hand and arm steady while moving arm or while holding arm and hand in one position
10. Make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects
11. Capable of walking up and down stairs in order to respond to emergency situations
12. Wear lead aprons, thyroid shields, and lead gloves for extended period of time.
13. Hearing must be corrected, so as to be able to hear the patient at a distance of 10-15 feet.
	1. Also, hear faint audible signals such as low sounding buzzers to determine and recognize equipment malfunction.
14. Sight corrected with devices so as to be able to read and adjust the x-ray control panel
15. Assist in lifting injured or incapacitated patients to the x-ray table from stretchers or wheelchairs
16. Not be highly allergic to contrast media

**OBSERVATION AND SENSORY SKILLS**

1. Hear, comprehend and interpret conversation and sounds not solely based on visual cues (including alarms, monitors, faint sounds, such as heart and breath sounds, taking blood pressure).
2. Ability to see details at close range (within a few feet of the observer) and at a distance.
3. Function efficiently in various degrees of light, from dark to bright lighting
4. Differentiate colors, varying shades of same color, and shades of black, white and gray
5. Read fine print and hand writing

Further detailed information on the radiologic technologist occupation is available at [**ONET Online**](http://www.onetonline.org/link/summary/29-2034.00).

Note: Students with disabilities must be able to meet the technical standards of the program with reasonable accommodations as defined by the ADA.

**Technical Standards Frequency Breakdown**

Technical Standards are all nonacademic criteria that are essential to participate in the program. Prospective students of the program should be willing to work with sick and injured patients in an empathetic way. Since at times the Radiographer works under stress, the prospective student should have the emotional stability to function effectively under stress. Attention to detail and accuracy is imperative. Clinical and laboratory assignments for the program also require certain physical and sensory abilities necessary to perform the tasks of a radiographer.

**Prospective students should self-evaluate their ability to adhere to the technical standards required in the radiologic technologist occupation.**

**Frequency Key:** O = Occasionally (1-33%) F=Frequently (34-66%) C=Constantly (67-100%)

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| **Physical Standards** |
| Standard | Example | Frequency | Yes | No |
| Lift | To assist patients into and out of wheelchairs; onto or off examination tables. | C |  |  |
| Bend, Stoop, Crouch | To place patients into various positions for examinations.  | C |  |  |
| To lift and place radiographic cassettes underneath patients. | F |
| Kneel, Stand | To plug in cords or adjust equipment locks | F |  |  |
| To assist patients who may fall or faint. | O |
| To perform CPR | O |
| Move | Torso, arms, hands and fingers to demonstrate dexterity | C |  |  |
| Reach | At least 6’ from floor to overhead radiographic equipment | C |  |  |
| Wear | Lead aprons (5 to 10 lbs. weight), thyroid shields, and lead gloves on hands (weight 1 to 2 lbs.). | F |  |  |
| Manual Dexterity  | To manipulate small knobs or controls on equipment | C |  |  |
| Prepare needles and syringes for injection. | F |
| Apply and wear gloves | C |
| Assist with removal of potential artifacts such as jewelry or zippers.  | O |
| Push / Pull | To move equipment, examination tables, chairs, or patients. | C |  |  |
| Walk / Stand | For extended periods of time, usually up to 8 (eight) hours | C |  |  |
| Auditory  | Hear verbal directions/requests from members of the health care team, patients, and telephone messages. | C |  |  |
| Hear instructions from surgeons wearing a surgical face mask | F |
| Hear distress sounds from patients. | C |
| Hear audible equipment signals. | C |
| Visual | Assess patient position, comfort and safety. | C |  |  |
| To read requisitions for information related to radiographs | C |
| Monitor equipment function indicators on x-ray machines. | C |
| Evaluate the radiographic image. | C |
| Ability to discern colors used to indicate alarm conditions, e.g., red/amber/green/gas cylinders. | C |
| Fine Motor Skills | Ability to hold and use a writing instrument for recording patient history or other pertinent information. | C |  |  |
| Ability to hold contrast media bottles still during sterile tray preparation.  | F |
| Verbal  | Articulates information to staff, patients and peers | C |  |  |

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| **Behavioral Standards** |
| Standard | Example | Frequency | Yes | No |
| Composure under stress | Function safely, effectively, and calmly under stressful conditions | F |  |  |
| Multitasking  | Maintain composure while managing multiple tasks simultaneously | C |  |  |
| Social Skills | Interact effectively and respectfully with patients, families, supervisors, and co-workers of the same or different cultures | C |  |  |
| Personal Hygiene | Maintain personal hygiene consistent with close personal contact associated with patient care | C |  |  |

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