Program Vocational Learning Outcomes

Medical Imaging Technology –Ultrasonography (Ontario College Advanced Diploma)

(MTCU Code 61610)

The successful completion of this program will enable the graduate to:

1. Apply critical thinking skills to ensure best performance as a Diagnostic Medical Sonographer.

2. Communicate in a professional manner with patients and other health care professionals using effective verbal, non-verbal and written skills.

3. Provide competent and individualized patient care, demonstrating principles of professional conduct and judgement.

4. Integrate available diagnostic data and patient’s medical history and status to formulate sonographic scanning strategies.

5. Provide technical analysis of sonographic data and technical impression for physician interpretation, utilizing knowledge’s of structures and conditions. Demonstrate an understanding of Diagnostic Sonography hardware and software.

6. Apply ultrasound safety procedures with respect to screening, bio-effects (particularly Doppler) and emergency procedures for incidents and accidents during ultrasound procedure(s).

7. Apply the theoretical principles and physical properties of physics and sonography to optimize image quality while minimizing risk of adverse events to clients and self.

8. Utilize all aspects of quality assurance and perform routine quality control procedures by applying knowledge of the principles of ultrasound physics and instrumentation to best optimize both diagnostic abilities and image quality.

9. Identify and respond competently in all emergency situations.

10. Interact appropriately within the healthcare environment a member of a multi-discipline team.

11. Perform patient assessments and medical interventions, differentiate sonographic appearance of normal structures from anomalous and pathologic conditions and produce diagnostic data using techniques within the scope of practice and in accordance with national regulatory standards.

12. Implement infection control practices and respond to the hygiene needs of the patient and practice in accordance with legislation, regulations and ethical guidelines related to the profession.
13. Identify the roles and responsibilities of the professional and governing bodies of the discipline.

14. Incorporate strategies for continual learning within the changing field of medical imaging technology.

15. Perform Sonographic examinations of:
   - Obstetrical studies
   - Gynecological studies
   - Abdominal studies
   - Superficial structures studies
   - Musculoskeletal studies
   - Vascular studies
   - Neonatal head studies

16. Select and demonstrate appropriate sonographic imaging strategies to identify pathological processes of:
   - Obstetrical studies
   - Gynecological studies
   - Abdominal studies
   - Superficial structures studies
   - Musculoskeletal studies
   - Vascular studies
   - Neonatal head studies