

MEDICAL IMAGING (DMSO)

DMSO 1110 Introduction to Sonography 1 Credit (1 Lec, 0 Lab)

This course provides an introduction to the profession of sonography and the role of the sonographer. Emphasis is on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations and history of the profession.

Prerequisite(s): Acceptance into the program

Course Type: Technical

DMSO 1166 Practicum I - Diagnostic Medical Sonography 1 Credit (0 Lec, 7 Lab)

This is a practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

Prerequisite(s): DMSO 1110, DMSO 1251, and SCIT 1420 or PHYS 1301 and PHYS 1101

Course Type: Technical

DMSO 1251 Sonographic Sectional Anatomy 2 Credits (2 Lec, 1 Lab)

This course covers sectional anatomy of the male and female body. It includes anatomical relationships of organs, vascular structures, and body planes and quadrants.

Prerequisite(s): Acceptance into the Diagnostic Medical Sonography Program

Course Type: Technical

DMSO 1266 Practicum II - Diagnostic Medical Sonography 2 Credits (0 Lec, 16 Lab)

This is a practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

Prerequisite(s): DMSO 1166, DMSO 1302, DMSO 2253, DMSO 1441

Course Type: Technical

DMSO 1267 Practicum III - Diagnostic Medical Sonography 2 Credits (0 Lec, 18 Lab)

This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

Prerequisite(s): DMSO 1266, DMSO 2405, DMSO 1342

Course Type: Technical

DMSO 1302 Basic Ultrasound Physics 3 Credits (3 Lec, 1 Lab)

This course covers basic acoustical physics and acoustical waves in human tissue. This covers ultrasound transmission in soft tissues, attenuation of sound energy, parameters affecting sound transmission, and resolution of sound beams.

Prerequisite(s): DMSO 1110, DMSO 1251, SCIT 1420 or PHYS 1301 and PHYS 1101

Course Type: Technical

DMSO 1342 Intermediate Ultrasound Physics 3 Credits (3 Lec, 1 Lab)

This course is a continuation of Basic Ultrasound Physics. Includes interaction of ultrasound with tissues, mechanics of ultrasound production and display, various transducer designs and construction, quality assurance, bioeffects, and image artifacts. May introduce methods of Doppler flow analysis.

Prerequisite(s): DMSO 1166, DMSO 1302, DMSO 1441, DMSO 2253

Course Type: Technical

DMSO 1355 Sonographic Pathophysiology 3 Credits (3 Lec, 1 Lab)

The course covers pathology and pathophysiology of the abdominal structures visualized with ultrasound. Includes abdomen, pelvis, and superficial structures.

Prerequisite(s): DMSO 1266, DMSO 1342, DMSO 2405

Course Type: Technical

DMSO 1367 Practicum IV - Diagnostic Medical Sonography 3 Credits (0 Lec, 24 Lab)

This is a practical, general workplace training supported by an individualized learning plan developed by the employer, College, and student.

Prerequisite(s): DMSO 1267, DMSO 1355, DMSO 2342, DMSO 2343

Course Type: Technical

DMSO 1441 Abdominopelvic Sonography 4 Credits (3 Lec, 4 Lab)

This course covers normal anatomy and physiology of the abdominal and pelvic cavities as related to scanning techniques, transducer selection, and scanning protocols.

Prerequisite(s): DMSO 1110, DMSO 1251, SCIT 1420 or PHYS 1301 and PHYS 1101

Course Type: Technical

DMSO 2230 Advanced Ultrasound and Review 2 Credits (1 Lec, 4 Lab)

This course provides knowledge, skills, and professional values within a legal and ethical framework addressing emerging technologies and professional development.

Prerequisite(s): DMSO 1267, DMSO 1355, DMSO 2342, DMSO 2343

Course Type: Technical

DMSO 2245 Advanced Sonography Practices 2 Credits (2 Lec, 0 Lab)

This course covers exploration of advanced sonographic procedures and emerging ultrasound applications.

Prerequisite(s): DMSO 1267, DMSO 1355, DMSO 2342, DMSO 2343

Course Type: Technical

DMSO 2253 Sonography of Superficial Structures 2 Credits (2 Lec, 1 Lab)

This course is a detailed study of normal and pathological superficial structures as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols.

Prerequisite(s): DMSO 1110, DMSO 1251, SCIT 1420 or PHYS 1301 and PHYS 1101

Course Type: Technical

DMSO 2342 Sonography of High Risk Obstetrics 3 Credits (3 Lec, 1 Lab)

This course covers maternal disease and fetal abnormalities. Includes scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols.

Prerequisite(s): DMSO 1266, DMSO 1342, DMSO 2405

Course Type: Technical

DMSO 2343 Advanced Ultrasound Physics 3 Credits (3 Lec, 0 Lab)

This course covers theory and application of ultrasound principles. Includes advances in ultrasound technology.

Prerequisite(s): DMSO 1266, DMSO 1342, DMSO 2405

Course Type: Technical

DMSO 2405 Sonography of Obstetrics/Gynecology 4 Credits (3 Lec, 3 Lab)

This course is a detailed study of the pelvis and obstetrics/gynecology as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols.

Prerequisite(s): DMSO 1166, DMSO 1302, DMSO 1441, DMSO 2253

Course Type: Technical