

[SECTION 3]

[ADDENDUM]

Course Prerequisite/Description Changes

- » Diagnostic Medical Sonography
- » Health Information Technology
- » Mathematics

Course Additions

- + Industrial Electrical Maintenance
- + Machine Tool
- + Student Success

Course Inactivations

- × Service Education

- + Additions
- » Changes
- × Deletions

COURSE DESCRIPTIONS

DIAGNOSTIC MEDICAL SONOGRAPHY

» DMS 103 - Cardiac Ultrasound I 3

Prerequisite: Admission to DMS program or consent of program director. Introduction to cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and an introduction to pathology.

» DMS 113 - Cardiac Ultrasound II 3

Prerequisite: DMS 103 with a grade of B or higher or consent of program director. Continuation of DMS 103. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology.

» DMS 120 - Sonography Principles and Instrumentation I 3

Prerequisite: Admission to DMS program or consent of program director. Comprehensive instruction on acoustic physics, Doppler ultrasound principles, hemodynamics, and ultrasound instrumentation. Bioeffects, safety and the interactions between ultrasound and tissues will be presented. Quality assurance, quality improvement and sonography department protocols will also be covered.

» DMS 122 - Sonography Principles and Instrumentation II 3

Prerequisite: DMS 120 with a grade of C or higher or consent of program director. Continuation of DMS 120. Comprehensive instruction on acoustic physics, Doppler ultrasound principles, hemodynamics, and ultrasound instrumentation. Bioeffects, safety and the interactions between ultrasound and tissues will be presented. Quality assurance, quality improvement and sonography department protocols will also be covered. This course will include Sonography Principles and Instrumentation (SPI) registry review material and mock exams.

» DMS 123 - Cardiac Ultrasound III 3

Prerequisite: DMS 113 with a grade of B or higher or consent of program director. Continuation of DMS 113. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology.

» DMS 130 - General Sonography I 2

Prerequisite: Admission to DMS program or consent of program director. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures, and non-cardiac chest. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human

thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

» DMS 132 - General Sonography II 2

Prerequisite: DMS 130 with a grade of B or higher or consent of program director. Continuation of DMS 130. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures and non-cardiac chest. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

» DMS 133 - Cardiac Ultrasound IV 3

Prerequisite: DMS 123 with a grade of B or higher or consent of program director. Continuation of DMS 123. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology. Will include an introduction to pediatric echo.

» DMS 134 - General Sonography III 2

Prerequisite: DMS 132 with a grade of B or higher or consent of program director. Continuation of DMS 130 and DMS 132. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures and noncardiac chest. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. This course will include Abdominal Sonography registry review material and mock exams.

» DMS 140 - OB/GYN Sonography I 2

Prerequisite: Admission to DMS program or consent of program director. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis. Pathology and pathophysiology specific to the obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented.

» DMS 142 - OB/GYN Sonography II 2

Prerequisite: DMS 140 with a grade of B or higher or consent of program director. Continuation of DMS 140. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis. Pathology and pathophysiology specific to the

COURSE DESCRIPTIONS

obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented.

» DMS 144 - OB/GYN Sonography III 2

Prerequisite: DMS 142 with a grade of B or higher or consent of program director. Continuation of DMS 140 and DMS 142. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis. Pathology and pathophysiology specific to the obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented. This course will include OB/GYN registry review material and mock exams.

» DMS 150 - Vascular Sonography I 2

Prerequisite: Admission to DMS program or consent of program director. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

» DMS 152 - Vascular Sonography II 2

Prerequisite: DMS 150 with a grade of B or higher or consent of program director. Continuation of DMS 150. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

» DMS 154 - Vascular Sonography III 2

Prerequisite: DMS 152 with a grade of B or higher or consent of program director. Continuation of DMS 150 and DMS 152. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. This course will include Vascular Sonography registry review material and mock exams.

HEALTH INFORMATION TECHNOLOGY

» HIT 204 - Coding I 3

Prerequisites: BIO 103, HEOC 120 and HEOC 122 with grades of C or higher. Corequisite: HIT 224 with a grade of C or higher. Overview of the (International Classification of Diseases, 10th Division, Clinical Modification) ICD-10-CM code book with basic coding assignment/guidelines instructions and the basic reimbursement methodologies, specifically diagnosis related groups (DRGs). Initial preparation for CCA Exam - AHIMA.

MATHEMATICS

» MATH 110 - Intermediate Algebra with Review 5

Prerequisite: MATH 061 with a grade of C or higher or equivalent placement score. Course is designed to provide just-in-time structured support through practice and review of beginning algebra concepts. Topics include linear equations, inequalities, and their graphs, systems of equations in two unknowns, absolute value equations, rules of exponents, operation on and factoring of polynomials, rational expressions and equations, rational exponents, radicals and their equations, complex numbers, and solving quadratic equations using various techniques.

» MATH 112 - Intermediate Algebra 3

Prerequisite: Equivalent placement score. Topics include linear equations, inequalities, and their graphs, systems of equations in two unknowns, absolute value equations, rational expressions and equations, rational exponents, radicals and their equations, complex numbers, and solving quadratic equations using various techniques.

INDUSTRIAL ELECTRICAL MAINTENANCE

+ IEM 109 - Robotics Automation Technician I 3

Prerequisite: IEM 107 with a grade of C or higher. Course is designed to provide more hands on experience and exercise for programming six axis robotic arms. Students will learn the programming functions beyond basics, and explore more operational performance features of robotics using a input sensory systems. Course will provide hands on exposure using an industrial robot(s).

MACHINE TOOL

+ MACH 107 - Introduction to CNC Programming 3

Prerequisite: MACH 106 with a grade of D or higher. Includes basic programming of the CNC turning and machining centers. Each student will gain the following skills; creating and editing basic CNC programs, the use of canned cycles, cutter compensation, programming lineal and circular interpolation, and safe setup and operation of machine tools.

COURSE DESCRIPTIONS

+ MACH 109 - Advanced CNC Machining 3

Prerequisite: MACH 106 with a grade of C or higher. Provides technical information and considerable practical experience in preparation, setup and operation of CNC machining center and CNC lathe. Proofing, editing and post processing of programs will be emphasized using computer aided manufacturing (CAM) software. Tooling and tool path generation methods will be explained along with fixed and canned cycles. (1 lecture, 2 lab)

STUDENT SUCCESS

+ SS 225 - Problems in Leadership through Cultural Experiences 3

Prerequisite: Consent of instructor. Spring semester only. Independent study of a special problems relating to various leadership themes and principles to foster interaction in a global society under the supervision of an instructor in a related discipline.

SERVICE EDUCATION

✕ SRVE 201 - Emerging Leaders II 1

✕ SRVE 180 - Problems in Service Learning and Leadership 1 to 3