

**Course Objectives/Course Outline
Spokane Community College**

Course Title: Human Cross-Section Anatomy-Ultrasound II

Prefix and Course Number: SONO 121

Course Learning Outcomes:

By the end of this course, a student should be able to:

Transverse and sagittal cross-sectional anatomy of the human body is compared to the tomographic images obtained by ultrasound, magnetic resonance (MR) and computed tomography (CT). Emphasis is placed on gross human anatomy as sliced into tomographic planes and the tissue characteristics that create image variations. Laboratory experience is provided.

- Demonstrate a comprehensive knowledge of the anatomy and normal sonographic appearances of the body.
- Describe the normal anatomy and variants, function, sonographic technique and normal sonographic appearances of the liver, Biliary system, pancreas, renals and lower urinary system, spleen, adrenals, abdominal vasculature, gastrointestinal tract, abdominopelvic walls and muscles, female pelvis, male pelvis, superficial structures, and obstetrics.
- Describe the protocol and procedure for abdominal sonograms.
- Perform comprehensive sonographic examinations utilizing models or simulator which demonstrate normal anatomy.
- Practice sonographic techniques in ergonomically safe manner.

Course Outline:

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| <p>I. Sonographic Approach to Understanding Anatomy</p> <p>A. Body Systems</p> <p>B. Anatomy Layering and Sectional Anatomy</p> | <p>V. Biliary System</p> <p>A. Prenatal Development</p> <p>B. Location</p> <p>C. Size</p> <p>D. Gross Anatomy</p> <p>E. Physiology</p> <p>F. Sonographic Appearance and applications</p> <p>G. Normal Variants</p> |
| <p>II. Urinary System</p> <p>A. Prenatal Development</p> <p>B. Location</p> <p>C. Size</p> <p>D. Gross Anatomy</p> <p>E. Physiology</p> <p>F. Sonographic Appearance and applications</p> <p>G. Normal Variants</p> | <p>VI. Spleen</p> <p>A. Prenatal Development</p> <p>B. Location</p> <p>C. Size</p> <p>D. Gross Anatomy</p> <p>E. Physiology</p> <p>F. Sonographic Appearance and applications</p> <p>G. Normal Variants</p> |
| <p>III. Abdominal Vasculature</p> <p>A. Abdominal Aorta</p> <p>B. Inferior Vena Cava</p> <p>C. Portal Venous System</p> <p>D. Abdominal Arterial & Venous System</p> | <p>VII. Pancreas</p> <p>A. Prenatal Development</p> <p>B. Location</p> <p>C. Size</p> <p>D. Gross Anatomy</p> |
| <p>IV. Liver</p> <p>A. Prenatal Development</p> <p>B. Location</p> <p>C. Size</p> <p>D. Gross Anatomy</p> <p>E. Physiology</p> | |

- E. Physiology
- F. Sonographic Appearance and applications
- G. Normal Variants
- VIII. Female Pelvis
 - A. Prenatal Development
 - B. Location
 - C. Size
 - D. Gross Anatomy
 - E. Physiology
 - F. Sonographic Appearance and applications
 - G. Normal Variants
- IX. Male Pelvis
 - A. Prenatal Development
 - B. Location
 - C. Size
 - D. Gross Anatomy
 - E. Physiology
 - F. Sonographic Appearance and applications
 - G. Normal Variants
- X. Thyroid & Parathyroid Glands
 - A. Prenatal Development
 - B. Location
 - C. Size
 - D. Gross Anatomy
 - E. Physiology
 - F. Sonographic Appearance and applications
 - G. Normal Variants
- XI. Breast Sonography
 - A. Prenatal Development
 - B. Location
 - C. Size
 - D. Gross Anatomy
 - E. Physiology
 - F. Sonographic Appearance and applications
 - G. Normal Variants
- XII. Neonatal Brain
 - A. Prenatal Development
 - B. Location
 - C. Size
 - D. Gross Anatomy
 - E. Physiology
 - F. Sonographic Appearance and applications
 - G. Normal Variants