PIKES PEAK STATE COLLEGE

Master Course Syllabus

Introduction to Sonography – DMS 1001

Purpose of Document

This document contains important information for transfer. It may be helpful for you to retain a copy for your records, along with the class specific syllabus. This document will be especially helpful if you decide to later change your course of study.

Pikes Peak State College and the Colorado Department of Higher Education have determined that graduates should have a broad range of learning skills as well as discipline related skills. Both types of skills are detailed below.

Course Description

Provides an overview of sonography for students interested in the Diagnostic Medical Sonography program with an introduction to pulse-echo imaging, general sonography, cardiac sonography, vascular technology, and typical career opportunities.
Credit Hours: 2
Contact Hours: 30

Required Course Learning Outcomes

1. Describe pulse-echo imaging techniques used in sonography.
2. Identify common anatomical areas imaged by general sonography.
3. Explain the roles and responsibilities of the sonographer within the healthcare team.
4. Discuss the history and evolution of diagnostic medical sonography.
5. Outline the educational, certification (ARDMS), and professional requirements for the sonography profession.
6. Demonstrate an understanding of patient-centered care, professional ethics, and safety standards in a clinical environment.

Topical Outline

I. Introduction to the Sonography Profession
   a. History and evolution of ultrasound
   b. Career opportunities and work settings (Hospital vs. Clinic)
   c. Professional organizations and credentialing (ARDMS)

II. Fundamentals of Sonographic Imaging
   a. Introduction to pulse-echo imaging techniques
   b. Basic ultrasound physics and instrumentation (conceptual)
   c. Image characteristics and artifacts

III. Sonographic Specialties
   a. General Sonography (Abdominal and Small Parts)
   b. Obstetric and Gynecological Sonography
   c. Cardiac Sonography (Echocardiography)
   d. Vascular Technology

IV. Clinical Practice and Patient Care
    a. Role and responsibilities of the sonographer
    b. Patient-centered communication and diversity
    c. Ergonomics and injury prevention
    d. Ethical standards and medico-legal aspects
V. Program Orientation
    a. PPSC DMS program structure and expectations
    b. Clinical observation and internship pathways