



## **Course Description**

### **PAS1831 | Clinical Diagnostic Imaging | 1.00 credit**

This is a study of multiple imaging modalities employed in the diagnosis of pathologic processes. Prerequisites: BSC2085, BSC2085L, BSC2086, BSC2086L, CHM1045, CHM1045L, CHM1046, CHM1046L, MCB2010, and MCB2010L

## **Course Competencies:**

**Competency 1:** The student will recognize imaging modalities such as Ultrasound, CT, MR, nuclear medicine and radiologic images by:

1. Describing the basic principles of radiographs
2. Discriminating between the image generation process in radiographs, CT, MRI, ultrasound, and PET/CT
3. Describing the expected appearance of radiopaque and radiolucent materials on plain radiograph

**Competency 2:** The student will compare and contrast normal and abnormal radiographic findings on conventional radiography studies, ultrasound, CT, MRI, and nuclear medicine studies by:

1. Summarizing the relationship between radiologic findings and patient management
2. Discussing the most common pathologic terms systematically
3. Reading and interpreting a chest radiograph using a systematic approach
4. Evaluating the technical quality of a radiograph by assessing inspiratory effort, penetration, and rotation

**Competency 3:** The student will identify common abnormal findings on radiographs using a system approach by:

1. Describing the radiographic features of the following conditions: CHF, Asthma, pulmonary edema, COPD, pulmonary embolism, pleural effusion, pneumothorax, and pneumonia
2. Recognizing and interpreting the radiographic features of the following conditions: sinusitis, skull fractures, nasal fractures, mandible fractures
3. Recognizing and interpreting common fractures and dislocations of the hand, wrist, elbow, arm, shoulder, pelvis, hips, legs, knees, ankle and foot
4. Recognizing and interpreting abdominal radiographic studies

## **Learning Outcomes:**

- Communicate effectively using listening, speaking, reading, and writing skills
- Solve problems using critical and creative thinking and scientific reasoning
- Use computer and emerging technologies effectively