# **MOHAWK VALLEY COMMUNITY COLLEGE, UTICA-ROME, NY**

# **COURSE OUTLINE**

Course Name: **Radiographic Procedures/Pathology II C-1 P-4 Cr. 3**

Course Number**:** RT 106

Pre-requisites: RT101 Fundamentals of Radiography, RT102 Radiographic Procedures/Pathology I, RT103 Clinical Education Fundamentals.

Co-requisites: RT104 Patient Care II/ Pharmacology & IV Therapy, RT107 Clinical Education Intermediate I.

**Course Description**:

This course introduces students to the skills necessary to perform the routine radiographic procedures with confidence. Through laboratory demonstration, supervised lab practice, and image evaluation, students receive instruction on the proper positioning of the patient to achieve a finished radiographic image displaying specific structures on particular body parts. The course also includes pathologic indications for each projection and appropriate adjustments for certain pathologic conditions that may affect the patient’s ability to assume certain positions. Proper equipment manipulation and patient safety issues are discussed throughout the course.

**Student Learning Outcomes:**

**Lecture:**

1. Describe the basic composition and characteristics of bone.
2. Summarize the functions of the skeletal system.
3. Identify and locate the bones of the human skeleton on skeletal models and radiographs.
4. Identify and describe bony processes and depressions found on the human skeleton as seen on skeletal models and radiographs.
5. Identify and describe articulations of the axial and appendicular skeleton.
6. Compare the movements permitted by the different types of articulations.
7. Differentiate the primary and secondary curves of the spine.
8. Recognize and identify, radiographically, various skeletal clinical indications to include benign and malignant processes.
9. Describe basic positioning and technical factor adjustment necessary to best demonstrate skeletal pathological processes.

**Lab:**

1. Obtain a complete history from the “patient” pertinent to the exam being performed
2. Interpret requests for radiographic examinations
3. Manipulate radiographic equipment properly
4. Develop the proper technical factors that need to be employed for specific human body examinations
5. Properly position the “patient” for specific projections
6. Provide evidence of radiographic protection
7. Demonstrate, in a non-energized laboratory, the correct positioning on a phantom
8. Critique radiographs for the structures best demonstrated for specific body projections
9. Determine alternate projections to accommodate, when necessary, the patient’s condition
10. Determine the steps to perform specific routine radiographic examinations
11. Develop critical thinking skills with the use of alternate projections

**Major Topics:**

**Lecture:**

1. Introduction to the Skeletal System

2.Upper Extremity and Shoulder Girdle

3. Lower Extremity and Pelvic Girdle

 4. Bony Thorax – Sternum and Ribs

5. Cervical and Thoracic Spine

6. Lumbar Spine, Sacrum, and Coccyx

 7. Cranium, Facial Bones, and Paranasal Sinuses

**Lab:**

1. Introduction to Radiographic Procedures

 a. Humerus and Shoulder Girdle

 b. Lower Limb

 c. Femur and Pelvic Girdle

 d. Bony Thorax - Sternum and Ribs

 e. Cervical and Thoracic Spine

 f. Lumbar Spine, Sacrum and Coccyx

 g. C-arm Demonstration

 2. Supervised Laboratory Practice

a. Humerus and Shoulder Girdle

 b. Lower Limb

 c. Femur and Pelvic Girdle

 d. Bony Thorax - Sternum and Ribs

 e. Cervical and Thoracic Spine

 f. Lumbar Spine, Sacrum and Coccyx

 g. C-arm Demonstration

 3. Introduction to C - arm equipment

 a. Safety

 b. Operation of equipment

 4. Rad Review board assignments

 5. Board Vitals assignments

RS 2/9/23