RADT A185: RADIOGRAPHIC PATHOLOGY

Item	Value
Curriculum Committee Approval Date	11/17/2021
Top Code	122500 - Radiologic Technology
Units	2 Total Units
Hours	36 Total Hours (Lecture Hours 36)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

Advanced study, identification, and critique of common radiographic pathologies in major body systems. Assists the learner in providing quality patient care. PREREQUISITE: Acceptance into the OCC Radiologic Technology Program or completion of a community college radiologic technology program and current or pending application. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Recognize common radiographic pathologies as related to major organ systems.
2. Apply appropriate exposure modifications required to demonstrate common radiographic pathologies.

Course Objectives

- 1. Identify terminology, general methods of diagnosis, and principles of treatment in the study of disease.
- 2. Examine causes of general pathological processes, etiologies, manifestations, and treatment of inflammation, disorders of immunity, neoplasia, and inherited diseases
- 3. Identify common pathologies of the various body systems.*
- 4. Identify common pathologies unique to children and specific age groups.*
- 5. Demonstrate increase visual radiographic image analysis.*
- 6. Develop a protocol for an optional radiographic study necessary to demonstrate specific pathology.**
- 7. Demonstrate manipulation of exposure factors to evaluate pathology.*
- 8. Describe variations from the normal positioning routines necessary for specific pathological conditions**
- 9. Prepare a specific pathology written presentation.**
- 10. Identify common pathologies unique to CT, mammography, and interventional imaging.*
- I SCAN SKILLS IDENTIFICATION
- II *Competencies
- III **Foundation Skills

Lecture Content

Course Orientation and Introduction Discuss class Syllabus/Objectives Discuss course calendar Identify course text and materials Review grading system (scale/frequency) Discuss pathology research paper Introduction to the General Principles of Pathology Disease Process Inflammation Neoplasia Hereditary conditions Disorders of immunity Bodys reaction to pathologic condition Special imaging techniques to demonstrate pathologies Common skeletal system pathologies Non-trauma vs. trauma Tumors Degenerative changes Metabolic disorders Inflammation Image Analysis that demonstrates identified Pathologies Analysis/discussion of Pathology by Major body Systems, continued Gastrointestinal system Importance of plain abdomen radiograph Abnormal gas patterns Air fluid levels Common G1 pathologies Image analysis that demonstrate identified pathologies Analysis/discussion of pathology by Major Body Systems, continued Common Urinary System Pathologies Testing Quiz – General principles of pathology and skeletal pathologies interactive class activity – post test discussion and review of pathology images Analysis/discussion of pathology by Major Body Systems, continued Respiratory System Chest Imagery Common chest pathologies Radiographic signs in chest imaging Common CT chest pathologies Analysis/discussion of pathology by Major Body Systems , continued Cardiovascular system Overview of acquired vascular disease Role of specialized imagery modalities to detect CVS pathologies Common vascular pathologies Testing Test – Chapters 1-5 Interactive class activity – post test discussion and review of pathology images Analysis/discussion of pathology by Major Body Systems, continued Nervous system Common spine pathologies Congenital malformations Degenerative diseases Structural defects Skull Normal vs abnormal radiographic findings on routine skull images Congenital pathologies Vascular pathologies Trauma pathologies Tumors Common CT brain pathologies Image analysis that demonstrates identified pathologies Overview of pediatric and pathologies neoplasia Common pediatric pathologies Respiratory Abdominal Neoplastic Types of cancers Grading and staging – TNM system Signs and symptoms Breast pathologies Final Written componentImage analysis/identification of pathologies Image analysis/identification of pathologies

Method(s) of Instruction

- Lecture (02)
- DE Online Lecture (02X)

Instructional Techniques

1. Lecture 2. Discussion related to pathology slides and radiographic images 3. Image analysis. 4. Pathology case studies. 5. Clinical case study analysis

Reading Assignments

Weekly assigned questions by chapter approximately 30 minutes per week. Pathology research paper Documentation of case studies

Writing Assignments

Weekly assigned questions by chapter approximately 1 hour per week. Pathology research paper Presentation preparation of case studies

Out-of-class Assignments

Approximately 3 hour per week. Weekly assigned questions by chapter Pathology research paper Documentation of clinical case studies

Demonstration of Critical Thinking

Objective testing of course lecture and assigned reading. Periodic quizzes. Research pathology paper or presentation with support material, i.e., images. Case study presentation from the clinical lab.

Required Writing, Problem Solving, Skills Demonstration

1. Weekly assigned questions by chapter 2. Pathology research paper
3. Documentation and presentation of case studies

Eligible Disciplines

Radiological technology: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Eisenberg, Ronald. Comprehensive Radiographic Pathology,, 7th ed. Elsevier/Mosby, 2020 2. Required Lampignano, J. Kendrick, L. E. . Bontragers Textbook of Radiographic Positioning and Related Anatomy, 10th ed. Maryland Heights, Missouri: Elsevier/Mosby, 2021

Other Resources

1. Pathology Case Files, Orange Coast College Radiologic Technology Lab Room 103 LCAS. 2. Various Internet sites - as available for supporting pathology images.