



Western Technical College

10526189 Radiographic Pathology

Course Outcome Summary

Course Information

Description	Prepares radiography students to determine the basic radiographic manifestations of pathological conditions. Students classify trauma related to site, complications, and prognosis and locate the radiographic appearance of pathologies.
Career Cluster	Health Science
Instructional Level	Associate Degree Courses
Total Credits	1
Total Hours	18

Pre/Corequisites

Prerequisite 10526158 Introduction to Radiography

Textbooks

Mosby's Radiography Online: Radiographic Pathology. 3rd Edition. Copyright 2022. Curtis, Tammy. Publisher: Elsevier Science. **ISBN-13:** 978-0-323-77915-9. Required.

Radiographic Pathology for Technologists – with Access. 8th Edition. Copyright 2022. Publisher: Elsevier Science. **ISBN-13:** 978-0-323-79129-8. Required.

Success Abilities

1. Live Responsibly: Foster Accountability

Program Outcomes

1. Apply critical thinking and problem-solving skills in the practice of diagnostic radiography

Course Competencies

1. Determine the basic radiographic manifestations of pathological conditions and their relevance to radiological procedures

Assessment Strategies

- 1.1. Oral, written, graphic and/or skill assessment

Criteria

- 1.1. response addresses pathologies demonstrated in radiology
- 1.2. response includes evidence of critical thinking in applying knowledge of pathologies
- 1.3. response includes case study of a disease demonstrating radiology findings
- 1.4. response is thorough and well organized
- 1.5. response uses correct pathology terminology

Learning Objectives

- 1.a. Classify the more common diseases in terms of their attenuation of the radiographic beam
- 1.b. Recognize technical changes necessitated by underlying pathologies.
- 1.c. Define basic pathological terms

2. Compare the classifications of trauma related to site, complications, and prognosis

Assessment Strategies

- 2.1. Oral, written, graphic and/or skill assessment

Criteria

- 2.1. response includes trauma of the head, spine, bone and soft tissue structures
- 2.2. response includes trauma classifications
- 2.3. response uses correct terminology

Learning Objectives

- 2.a. Identify common trauma to the head with complications and prognosis of each
- 2.b. Identify common trauma to the skeletal system with complications and prognosis of each
- 2.c. Identify common trauma to the soft tissues with complications and prognosis of each
- 2.d. Identify common trauma to the spine with complications and prognosis of each

3. Compare the causes and process of tissue disruption

Assessment Strategies

- 3.1. Oral, written, graphic and/or skill assessment

Criteria

- 3.1. you address injury (acute/chronic), inflammation, edema, ischemia/infarction, hemorrhage, and neoplasm
- 3.2. you identify causes and processes of tissue disruption
- 3.3. you provide a complete description of tissue disruption
- 3.4. you use correct terminology

Learning Objectives

- 3.a. Explain different mechanics that can cause injury
- 3.b. Explain tissue disruption that can be caused by non-traumatic conditions

4. Show complications connected with the repair and replacement of tissue

Assessment Strategies

- 4.1. Oral, written, graphic and/or skill assessment

Criteria

- 4.1. response includes technical considerations
- 4.2. response includes patient considerations
- 4.3. response uses correct pathology terminology

Learning Objectives

- 4.a. Recognize differences in technical factors used in various stages of healing
- 4.b. Explain differences in procedure used with corrective devices
- 4.c. Explain tissue regeneration

5. Characterize the systemic classifications of disease and radiology procedures for each type

Assessment Strategies

- 5.1. Oral, written, graphic and/or skill assessment

Criteria

- 5.1. response includes skeletal and articular classifications
- 5.2. response includes digestive classifications
- 5.3. response includes respiratory classifications
- 5.4. response includes urinary classifications
- 5.5. response includes reproductive classifications
- 5.6. response includes circulatory classifications
- 5.7. response includes endocrine classifications
- 5.8. response includes nervous classifications
- 5.9. response includes definitions of terms
- 5.10. response includes prognosis
- 5.11. response includes radiographic appearance
- 5.12. response includes examples
- 5.13. response includes sites
- 5.14. response includes complications
- 5.15. response is correctly sorted into the categories
- 5.16. response uses correct pathology terminology

Learning Objectives

- 5.a. Classify pathology by body system
- 5.b. Match radiographic procedures to specific pathology

6. Identify the radiographic appearance of selected pathologies

Assessment Strategies

- 6.1. Oral, written, graphic and/or skill assessment

Criteria

- 6.1. you identify the effects of the pathology on image quality
- 6.2. you identify the technique and procedural modifications that are appropriate for each pathology
- 6.3. you explain why the modification was selected
- 6.4. you identify the effects of the pathology on anatomical presentation
- 6.5. you point out hereditary diseases
- 6.6. you use correct pathology terminology

Learning Objectives

- 6.a. Recognize changes in radiographic appearance caused by various pathology
- 6.b. Recognize changes in radiographic quality caused by various pathology
- 6.c. Explain modifications in technical factors used for additive or destructive pathologies

7. Examine the relationship of genetics to disease

Assessment Strategies

- 7.1. Oral, written, graphic and/or skill assessment

Criteria

- 7.1. you identify diseases which are caused by genetic origin and which are contributed to by genetic origins
- 7.2. you describe the imaging implications of the diseases
- 7.3. you describe the radiographic appearance of the diseases

Learning Objectives

- 7.a. Describe radiographic appearance of hereditary diseases
- 7.b. Explain possible causes and treatments of genetic diseases
- 7.c. Contrast genetic versus developmental disorders