

RADT 65 Course Outline as of Fall 2023**CATALOG INFORMATION**

Dept and Nbr: RADT 65 Title: PATHOLOGY IN RADIOLOGY

Full Title: Pathology in Radiology

Last Reviewed: 9/25/2023

| Units | | Course Hours per Week | | Nbr of Weeks | Course Hours Total | |
|---------|------|-----------------------|------|--------------|--------------------|-------|
| Maximum | 3.50 | Lecture Scheduled | 3.50 | 17.5 | Lecture Scheduled | 61.25 |
| Minimum | 3.50 | Lab Scheduled | 0 | 17.5 | Lab Scheduled | 0 |
| | | Contact DHR | 0 | | Contact DHR | 0 |
| | | Contact Total | 3.50 | | Contact Total | 61.25 |
| | | Non-contact DHR | 0 | | Non-contact DHR | 0 |

Total Out of Class Hours: 122.50

Total Student Learning Hours: 183.75

Title 5 Category: AA Degree Applicable

Grading: Grade Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

Catalog Description:

In this course, students will participate in comprehensive study of cross-sectional anatomy of all body systems, recognition of anatomical landmarks and an understanding of all aspects of radiographic pathology, including normal variations and abnormal changes due to diseases and trauma. Course will introduce etiology of disease and pathophysiologic disorders that compromise health and wellness. Variations in characteristic radiologic appearances as well as correlations of radiographic manifestations using multiple imaging modalities for clinical diagnosis and treatment will be discussed. Students will research pathology as it relates to imaging and present a literature review to medical professionals.

Prerequisites/Corequisites:

Course Completion of RADT 61C; AND Concurrent Enrollment in RADT 63B and RADT 71D

Recommended Preparation:**Limits on Enrollment:****Schedule of Classes Information:**

Description: In this course, students will participate in comprehensive study of cross-sectional

anatomy of all body systems, recognition of anatomical landmarks and an understanding of all aspects of radiographic pathology, including normal variations and abnormal changes due to diseases and trauma. Course will introduce etiology of disease and pathophysiologic disorders that compromise health and wellness. Variations in characteristic radiologic appearances as well as correlations of radiographic manifestations using multiple imaging modalities for clinical diagnosis and treatment will be discussed. Students will research pathology as it relates to imaging and present a literature review to medical professionals. (Grade Only)

Prerequisites/Corequisites: Course Completion of RADT 61C; AND Concurrent Enrollment in RADT 63B and RADT 71D

Recommended:

Limits on Enrollment:

Transfer Credit: CSU;

Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

| | | | |
|----------------------|----------------------|----------------------|-----------|
| AS Degree: | Area | Effective: | Inactive: |
| CSU GE: | Transfer Area | Effective: | Inactive: |
| IGETC: | Transfer Area | Effective: | Inactive: |
| CSU Transfer: | Transferable | Effective: Fall 1981 | Inactive: |
| UC Transfer: | | Effective: | Inactive: |

CID:

Certificate/Major Applicable:

Both Certificate and Major Applicable

COURSE CONTENT

Student Learning Outcomes:

At the conclusion of this course, the student should be able to:

1. Identify common pathologies on radiographic and cross-sectional images
2. Present literature review to medical professionals using the American Medical Association (AMA) style

Objectives:

At the conclusion of this course, the student should be able to:

1. Create a literature review on an appropriate topic within the scope of medical imaging practices using the American Medical Association (AMA) style
2. Recognize common pathological conditions and processes on radiographic and special imaging modalities of the gastrointestinal, genitourinary, musculoskeletal, nervous, respiratory, and circulatory systems
3. Identify trauma to bones and soft tissue on plain and cross-sectional images
4. Recognize common pathological conditions on images of pediatric cases
5. Locate major anatomical structures on computed tomography (CT), magnetic resonance (MR), and ultrasound images in the transverse axial, coronal, sagittal, and orthogonal (oblique) cross-sectional imaging planes
6. Identify connections between images and common pathologies that may be encountered in

Topics and Scope:

I. Radiographic Pathology

A. Variations of normal

1. Adult
2. Pediatric

B. Diseases

C. Trauma

D. Manifestations on images

II. Radiographic and Cross-sectional Anatomy and Related Pathology

A. Central nervous system

B. Musculoskeletal

C. Endocrinology

D. Pulmonary

E. Cardiology

F. Gastrointestinal system

G. Urinary system

H. Hepatobiliary system

I. Hemopoietic system

J. Reproductive system

K. Circulatory system

III. American Medical Association Style

A. Research methodology

B. Reference list

C. Presentation style

IV. Modifications of Standard and Special Techniques Necessary to Obtain Optimum Diagnostic Radiographic Studies

Assignment:

1. Weekly chapter readings (30-40 pages/week)
2. Research literature review paper on a pathological condition or scientific subject pertaining to medical imaging (5-10 pages)
3. Quizzes (6-8)
4. Midterm exam
5. Final exam

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

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|----------------------------------|
| Research literature review paper |
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| Writing 30 - 70% |
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Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

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|--|--------------------------------|
| None | Problem solving 0 - 0% |
| Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams. | |
| None | Skill Demonstrations 0 - 0% |
| Exams: All forms of formal testing, other than skill performance exams. | |
| Quizzes; midterm exam; final exam | Exams 25 - 60% |
| Other: Includes any assessment tools that do not logically fit into the above categories. | |
| Attendance and participation | Other Category 5 - 10% |

Representative Textbooks and Materials:

Radiographic Pathology for Technologists. 8th ed. Kowalczyk, Nina. Mosby. 2021.
 Sectional Anatomy for Imaging Professionals. 4th ed. Peteresen, Connie and Kelley, Lorrie.
 Mobsy. 2018.