R T 51B: FUNDAMENTALS OF RADIOLOGIC TECHNOLOGY II

Foothill College Course Outline of Record

Heading	Value
Units:	4
Hours:	4 lecture per week (48 total per quarter)
Prerequisite:	R T 51A.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade Only
Repeatability:	Not Repeatable

Student Learning Outcomes

- Identify proper positioning of the shoulder, hip and pelvis, gastrointestinal tract, urinary and biliary system in order to create diagnostic images.
- Evaluate images for anatomy related to shoulder, hip and pelvis, gastrointestinal tract, urinary system and biliary system for the purposes of providing diagnostic images.

Description

Continuation of R T 51A; radiographic anatomy, positioning and procedures, related to shoulder girdle, hip/pelvis, gastrointestinal tract, genitourinary system, and biliary system. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

Course Objectives

The student will be able to:
A. List and identify the anatomy of the shoulder girdle, hip/pelvis, abdomen, upper and lower gastrointestinal systems, biliary tract and genitourinary system.
B. Describe the positioning used to visualize anatomic structures of the shoulder girdle, hip/pelvis, abdomen, upper and lower gastrointestinal systems, biliary tract and genitourinary system.
C. Explain the radiographic procedures of the shoulder girdle, hip/pelvis, abdomen, upper and lower gastrointestinal systems, biliary tract and genitourinary system.
D. Evaluate radiographic images and explain rational for each projection/ procedure.

Course Content

A. Anatomy
1. Shoulder/scapula/clavicle
2. Hip/pelvis
3. Acute abdomen
4. Esophagus
5. Upper GI series
6. Small bowel series
7. Barium enema
8. Surgical cholangiography
9. ERCP
10. Cystography
11. Cystouragraphy
12. Intravenous urography
13. Retrograde urogram
14. Hystrosalpingography
15. Arthrogram
B. Positioning
1. Shoulder/scapula/clavicle
2. Hip/pelvis
3. Acute abdomen
4. Esophagus
5. Upper GI series
6. Small bowel series
7. Barium enema
8. Surgical cholangiography
9. ERCP
10. Cystography
11. Cystouragraphy
12. Intravenous urography
13. Retrograde urogram
14. Hystrosalpingography
15. Arthrogram
C. Radiographic procedures
1. Contrast media
2. Fluoroscopy
3. Radiation protection
4. Patient prep (pre and post)
5. Room preparation
D. Image evaluation
1. Anatomic structures shown
2. Positioning and patient instructions
3. Collimation and central ray
4. Technical and exposure criteria
5. Image markers and identifiers
6. Artifacts
7. Related pathology

Lab Content

Not applicable.

Special Facilities and/or Equipment

A. Multimedia classroom
B. Anatomical phantoms and models
C. Illuminators (viewboxes)
D. Positioning aids
E. Computer access/internet access for online Etudes component
F. 3-D virtual anatomy applications
G. Access to digital imaging teaching file
H. Internet access to Canvas

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Methods of evaluation may include, but are not limited to:
A. Quizzes, midterms, and a comprehensive final examination, for content, terminology and knowledge of subject matter.
B. Evaluation of written image analysis, for content, form, and application of critique methodology.

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Methods of instruction may include, but are not limited to: lecture, discussion, cooperative learning exercises, and demonstration.

Representative Text(s) and Other Materials

Bontranger, Kenneth L. Textbook of Radiographic Positioning and Related Anatomy. 9th ed. St. Louis, MO: C.V. Mosby Company, 2018.

Bontranger, Kenneth L. Workbook and Laboratory Manual Radiographic Positioning and Related Anatomy. 9th ed. St. Louis, MO: C.V. Mosby Company, 2018. ISBN: 9780323399661

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

A. Weekly reading assignments from text, one chapter per week, and syllabus, for integration into clinical practice.

B. Image analysis component, where application of material in lecture is utilized by evaluating digital radiographic images.

Discipline(s)

Radiological Technology