

# R T 62B: SPECIAL PROCEDURES & EQUIPMENT

## Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2021
Units:	3
Hours:	3 lecture per week (36 total per quarter)
Prerequisite:	R T 62A.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade Only
Repeatability:	Not Repeatable

## Student Learning Outcomes

- Describe the positioning, procedure and structures demonstrated for projections involving the facial bones, sinuses, and cranium.
- Describe image production and related equipment components in the angiographic imaging process.

## Description

Continuation of R T 62A with emphasis on radiography of the skull, facial bones, mandible, and sinuses. Advanced radiographic procedures with emphasis on angiographic, cerebral, heart and interventional procedures, angiographic equipment, radiographic anatomy and pathology. 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:

- Explain and evaluate radiographic positioning and procedures of the skull, facial bones, sinuses and cranium.
- Analyze anatomy and pathology related to the skull, facial bones, sinuses and cranium.
- Discuss specialized angiographic x-ray equipment, state its use, and describe how it functions.
- Correctly identify the blood vessels of the human body.
- Discuss basic equipment components and procedures required for cerebral angiography.
- Describe the basic equipment required for heart catheterization.
- Define interventional angiography and describe specific examples of vascular procedures.
- Describe the surgical environment and radiographic equipment application.

## Course Content

- Skull positioning and procedures
  - Cranium
  - Facial bones
  - Sella turcica
  - Petrous pyramids
  - Optic foramina
  - Maxilla, mandible

- Temporomandibular joints
- Sinuses
- Nasal bones
- Salivary glands
- Anatomy and pathology
  - Emphasis on the head and brain
  - Cerebral accidents
  - Tumors
  - Aneurysms
  - Meningitis
- Angiography overview
  - History
  - Medical legal issues
  - Patient care
  - Seldinger technique
  - Vessel selection
  - Contrast media
  - Equipment
  - DSA
    - Blood vessels
      - Pathology
      - Aorta and branches
      - Lymphangiography
    - Cerebral angiography
      - History
      - Vessels
      - Pathology
      - Positioning
  - Heart catheterization
    - History
    - Heart anatomy
    - Procedures and positioning
    - Pathology
  - Interventional radiography
    - Balloon angioplasty
    - Vascular stents
    - Thrombolysis
    - Embolization
    - Atherectomy
    - Vena cava filters
    - Retrieval
  - Surgery applications
    - Environment
    - Equipment
    - Precautions
    - C-arm applications

## Lab Content

Not applicable.

## Special Facilities and/or Equipment

Classroom with view boxes, multimedia equipment and internet access.

## Method(s) of Evaluation

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

- Quizzes
- Midterm
- Final examination

## **Method(s) of Instruction**

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

Lecture  
Demonstration  
Discussion  
Group activities

## **Representative Text(s) and Other Materials**

Bontrager, Kenneth. Textbook of Radiographic Positioning and Related Anatomy, 9th ed. 2017.

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

A. Weekly reading assignments from the course syllabus and textbook, approximately 10-20 pages.

## **Discipline(s)**

Radiological Technology