

## RADT - Radiologic Technology Courses

### RADT B1A Introduction to Radiologic Technology

2 units

**Prerequisites:** BC placement into math level 04 or successful completion of MATH B70 or equivalent with a grade of C or better and admission to the Radiologic Technology Program.

**Description:** Orientation to the duties and responsibilities of the Radiologic Technologist. Emphasizes the medical use of radiation, interpersonal communication, ethics, radiation safety and protection, foundations and futures of medicine and radiology, hospital and departmental operations, professional development and quality assurance. Assistance in understanding program requirements.

**Hours:** 36 lecture

**Transferable:** CSU and private colleges.

### RADT B1B Patient Care

2 units

**Prerequisites:** Successful completion of BIOL B18 or equivalent with a grade of C or better and admission to the Radiologic Technology Program.

**Description:** Introduction to the basic concepts of patient care in the field of radiography. Instruction and demonstration in aseptic and non-aseptic techniques, infection control, body mechanics, transfer and immobilization techniques, vital signs, oxygen therapy administration, medical emergencies, and contrast media.

**Hours:** 36 lecture

**Transferable:** CSU and private colleges.

### RADT B2A Radiographic Anatomy and Positioning 1

3 units

**Prerequisites:** Successful completion of RADT B4A and RADT B1B.

**Description:** Instruction and lab practice in radiographic positioning of the chest, abdomen, lower and upper extremities, arthrography, bone surveys and bone densitometry with correlated imaging anatomy.

**Hours:** 36 lecture, 54 lab

**Transferable:** CSU and private colleges.

### RADT B2B Radiographic Anatomy and Positioning 2

3 units

**Prerequisites:** Successful completion of RADT B2A and RADT B3A and RADT B4B with a grade of C or better.

**Description:** Instruction and lab practice in radiographic positioning of the vertebral column, bony thorax, gastrointestinal, biliary and urinary systems with correlated film anatomy.

**Hours:** 36 lecture, 54 lab

**Transferable:** CSU and private colleges.

### RADT B2C Radiographic Anatomy and Positioning 3

3 units

**Prerequisites:** Successful completion of RADT B7 with a grade of C or better and admission in the Radiologic Technology Program.

**Description:** Instruction and lab practice in radiographic positioning of the head and skull with correlated film anatomy. Introduction to the principles of mammography, angiography and interventional imaging with correlated anatomy.

**Hours:** 36 lecture, 54 lab

**Transferable:** CSU and private colleges.

### RADT B3A Radiographic Principles 1

3 units

**Prerequisites:** Successful completion of RADT B1A with a grade of C or better.

**Description:** The principles of radiographic image production and acquisition including tube construction, exposure factors, beam restriction, grids, scatter radiation, image receptors, image processing, sensitometry and digital imaging will be discussed.

**Hours:** 36 lecture, 54 lab

**Transferable:** CSU and private colleges.

### RADT B3B Radiographic Principles 2

3 units

**Prerequisites:** Successful completion of RADT B3A and RADT B12 with a grade of C or better.

**Description:** The principles of radiographic image production, acquisition and analysis including receptor exposure, contrast, spatial resolution, distortion, exposure control systems, mobile radiography, and fluoroscopy will be discussed.

**Hours:** 36 lecture, 54 lab

**Transferable:** CSU and private colleges.

### RADT B4A Introduction to Clinical Education

1.5 units

**Prerequisites:** Successful completion of BIOL B18 or BIOL B32 or BIOL B33 with a grade of C or better and acceptance to the Radiologic Technology Program.

**Description:** Introduction to clinical education includes job shadowing and observation in patient transportation techniques, image processing, patient registration, equipment orientation, general patient care and safety.

**Materials Fee:** \$44.00

**Hours:** 81 lab

**Transferable:** CSU and private colleges.

### RADT B4B Clinical Education 1

4 units

**Prerequisites:** Successful completion of RADT B4A with a grade of C or better.

**Description:** Supervised clinical experiences are provided to develop skills in basic radiographic procedures. Fundamentals of anatomy, positioning and technical factors for imaging quality, radiation safety and protection.

**Materials Fee:** \$20.00

**Hours:** 240 lab

**Transferable:** CSU and private colleges.

### RADT B5 Radiation Physics

3 units

**Prerequisites:** Acceptance to the Radiologic Technology Program.

**Description:** Fundamentals of physics, radiologic quantities and units, the atom, electromagnetic radiation, electricity and magnetism, x-ray equipment, x-ray production, filtration, x-ray interaction with matter, radiation protection and quality assurance.

**Hours:** 72 lecture, 18 lab

**Transferable:** CSU and private colleges.

### RADT B6 Clinical Education 2

5 units

**Prerequisites:** Successful completion of RADT B4B with a grade of

C or better.

**Description:** Supervised clinical experiences provided to perfect skills in a variety of radiographic procedures. Case studies of radiographic procedures discussing the fundamentals of anatomy, positioning and technical factors of image quality are analyzed. Extension of radiographic procedures demonstrated in RADT B2A, RADT B2B.

**Materials Fee:** \$20.00

**Hours:** 18 lecture, 216 lab

**Transferable:** CSU and private colleges.

### **RADT B7 Clinical Education 3**

*6.5 units*

**Prerequisites:** Successful completion of RADT B2B and RADT B3B and RADT B6 with a grade of C or better.

**Recommended:** BC placement into reading level 06.

**Description:** Supervised clinical experiences provided to perfect skills in a variety of radiographic procedures. Case studies of radiographic procedures discussing the fundamentals of anatomy, positioning and technical factors of image quality are analyzed. Extension of radiographic procedures demonstrated in RADT B2A, B2B.

**Materials Fee:** \$44.00

**Hours:** 18 lecture, 302 lab

**Transferable:** CSU and private colleges.

### **RADT B9A Sectional Anatomy for Medical Imaging**

*3 units*

**Prerequisites:** Acceptance into the radiologic technology program.

**Description:** Sectional anatomy of the head, spine, thorax, abdomen and pelvis. Emphasis on computed tomography and magnetic resonance images and other imaging modalities using sectional anatomy.

**Hours:** 54 lecture

**Transferable:** CSU and private colleges.

### **RADT B10 Clinical Education 4**

*7 units*

**Prerequisites:** Successful completion of RADT B7 with a grade of C or better.

**Description:** Supervised clinical experiences are provided in advanced radiographic and fluoroscopic procedures. Case studies of radiographic procedures discussing anatomy, pathology, positioning and technical factors of image quality are analyzed on a case-by-case basis.

**Materials Fee:** \$20.00

**Hours:** 18 lecture, 324 lab

**Transferable:** CSU and private colleges.

### **RADT B11 Radiographic Pathology**

*2 units*

**Prerequisites:** Successful completion of RADT B2C and RADT B5 and RADT B10 with a grade of C or better.

**Description:** Pathology and medical terminology pertinent to diagnostic medical imaging. Nature, causes, manifestations and treatment of disease. Imaging procedures utilized when making diagnosis.

**Hours:** 36 lecture

**Transferable:** CSU and private colleges.

### **RADT B12 Radiobiology and Radiation Protection**

*2 units*

**Prerequisites:** Successful completion of RADT B1A and B4A with a

grade of C or better.

**Description:** Fundamental concepts of radiobiology including interactions of matter, biological effects on living cells and organ systems, radiation quantities and units, filtration, radiation monitoring, ALARA concepts and radiation protection for occupational and non-occupational populations. Review of current related California and Federal health and safety codes.

**Hours:** 36 lecture

**Transferable:** CSU and private colleges.

### **RADT B13 Clinical Education 5**

*6.5 units*

**Prerequisites:** Successful completion of RADT B10 with a grade of C or better.

**Description:** Supervised clinical experiences are provided to perfect skills in advanced radiographic procedures. Designed to prepare the student for program completion and certification examinations.

**Materials Fee:** \$20.00

**Hours:** 351 lab

**Transferable:** CSU and private colleges.

### **RADT B30 Principles of Venipuncture**

*1 unit*

**Prerequisites:** Admission in the Radiologic Technology Program, or current Radiologic Technologist, and a Current Cardiopulmonary Resuscitation, Healthcare Provider card.

**Description:** Basic instruction, practice and competency of venipuncture methods and procedures for the administration of contrast agents. Routes of administration, safety, basic pharmacology, dosage calculations and emergency procedures. Course meets California Health and Safety Code, Section 106985, pertaining to Certified Radiologic Technologists performing venipuncture.

**Hours:** 18 lecture

**Transferable:** CSU and private colleges.