



1998

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

Course Outline Part A

School of Medical Radiography

Program: Health Sciences

Option:

MRAD 1106**Radiographic Procedures I**

Hours/Week:	8	Total Hours:	130	Term/Level:	1
Lecture:	4	Total Weeks:	17	Credits:	9.5
Lab:	5				

Prerequisites**MRAD 1106 is a Prerequisite for:**

Course No.	Course Name	Course No.	Course Name
As per BCIT Calendar		MRAD 2206	Radiographic Procedures II

Course Goals

- To introduce students to field and practices of radiography.
 - To understand radiographic procedures necessary to carry out required positioning of upper and lower extremities, spine, pelvis, chest and abdomen.
 - To become familiar with basic radiographic principles and medical terminology.
 - To develop skills necessary to competently critique radiographs of anatomical positions covered.
 - To understand the application of technical and physical principles affecting the radiographic image.
-

Course Description

This course introduces the field of radiography including the principles and terminology of imaging procedures. Emphasis will be placed on patient preparation and care as well as positioning and techniques for examinations of upper and lower extremities, spine, pelvis, chest and abdomen. The course also covers all factors affecting radiographic technique and quality. Skills to evaluate the diagnostic and technical acceptability of the radiographs for each of the respective areas will be developed. Labs will reinforce the theoretical components of the course.

Evaluation

Final Examination	40%	All the laboratory exercises must be satisfactorily completed for a course mark to be received. 60% is the required pass mark in this course.
Quiz		
Lecture	25%	
Lab	20%	
Project	10%	
Laboratory (positioning)	5%	
TOTAL	100%	

Course Outcomes and Sub-Outcomes

Upon successful completion of this course the student will be able to:

1. discuss the role of the Radiological Technologists in health care.
2. describe basic radiographic principles, basic patient positions and radiographic projections.
3. in the lab, perform basic radiographic projections of the upper extremity, lower extremity, pelvis, spine, chest and abdomen.
4. identify on radiographs the specific anatomical structures demonstrated, and evaluate for technical quality and diagnostic acceptability.
5. explain the influence of processing geometry and technical factors on the radiographic image.

Course Record

Developed by: _____ Date: _____
Instructor Name and Department (signature)

Revised by: _____ Date: _____
Instructor Name and Department (signature)

Approved by: _____ Start Date: _____
Associate Dean / Program Head (signature)



BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

School of Medical Radiography

Program: Health Sciences

Option:

Course Outline **Part B**

MRAD 1106

Radiographic Procedures I

Effective Date

January, 1998

Instructor(s)

Mary Filippelli

Office No.: SW3 4084

Office Hrs.: As Posted.

Phone: Loc. 8743

Text(s) and Equipment

Required:

- Philip W. Ballinger. *Merrill's Atlas of Radiographic Positions and Radiologic Procedures*, (6th edition).
- Laboratory Manual—Level 1.
- *Curriculum Guide for Radiography Programs*. Canadian Association of Medical Radiation of Technologists.
- McQuillen – Martensen. (1996). *Radiographic Critique*.
- MRAD 1106 Workbook.

Recommended:

Bushong, S. *Radiologic Science for Technologists*, (5th edition).

Cullinan, A.M., *Producing Quality Radiographs* (2nd edition).

**MRAD 1106
COURSE OUTLINE**

WEEK	LECTURE #1	LECTURE #2	FILM LAB	APPLIED LAB
1	new students	Intro to Radiography and basic considerations Radiographic Principles	Intro to lab area Intro to Radiographic image	How to view a radiograph
2	Intro to bone radiography Fingers, thumb & hand	Wrist, Scaphoid & Forearm Intro to Dupont Bit System	How to critique a radiograph	How to critique a radiography (Cont'd.) Types & sizes of films Marker Placement
3	Elbow and humerus Pediatric Considerations for Upper Extremities	Density	Film Comparison - Bit differences Density Comparisons - Upper Extremities	thumb & finger
4	Intro to Lower Extremities Toes and foot	Recorded Detail	hand and wrist	Applied Lab
5	Ankle and Calcaneus Quiz #1	Tib/fib, knee and patella	forearm, elbow and humerus	Applied Lab

6	Radiographic Contrast	Femur, pelvis and SI jnts	Density comparisons - lower extremities Toes	Lab Quiz #1
7	Pediatric Considerations - Lower Extremities Bodily Habitus & Radiography	Effects of Recorded Detail on Film Technical Factors Selection	Feet, ankle and calcaneus	Applied Lab
8	Distortion of the Image	AEC Techniques Types of Technique Charts	Tib/Fib, knee and patella	Applied Lab
9	Chest Radiography	Quiz #2	Femur, pelvis and SI jnts	Applied Lab
10	SPRING	BREAK		
11	Abdominal Radiography	Radiography and Pediatric Considerations	Chest	Lab Quiz #2
12	Vertebral Radiography Cervical Spine	Cervical Spine	Abdomen	Applied Lab
13	Thoracic Spine Lumbar Spine	Lumbar Spine	Cervical & Thoracic Spines	Applied Lab
14	Sacrum and Coccyx Review	Good Friday	Lumbar Spine	Applied Lab
15	Easter Monday	Video Projects & Review	Sacrum & Coccyx	Lab Quiz #3
16	FINAL	EXAM	WEEK	