



A POLYTECHNIC INSTITUTION

School of Health Sciences

Program: Medical Radiography

Option:

MRAD 3317
Pathology for Medical Radiographers**Start Date:** January, 2004**End Date:** April, 2004**Total Hours:** 45 **Total Weeks:** 15**Term/Level:** 3 **Course Credits:** 3**Hours/Week:** 3 **Lecture:** 2 **Lab:** 1**Shop:** **Seminar:** **Other:****Prerequisites****Course No. Course Name**

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|-----------|-------------------------------------|
| MRAD 2216 | Radiographic Procedures |
| MRAD 2217 | Pathology for Medical Radiographers |
| MRAD 2214 | Radiographic A & P |

MRAD 3317 is a Prerequisite for:**Course No. Course Name**

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|-----------|--------------------|
| MRAD 4400 | Clinical Education |
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■ Course Description

This course follows MRAD 2217 and includes relevant pathologies of the respiratory, gastrointestinal, urinary, mammary, cardiovascular, nervous, lymphoreticular, endocrine systems and the remaining skeletal system pathologies not covered in MRAD 2217.

■ Detailed Course Description

Level Three deals with pathologies of body systems. The goals of this course are to:

- provide the students with the knowledge necessary to make informed decisions about projections, technique changes and patient care associated with different pathologic processes.
- identify a select group of pathologies as they appear radiographically.
- give students a broad knowledge of the more common pathologic processes.

■ Evaluation

| | |
|---------------------|-------------|
| Final Examination | 35% |
| Midterm #1 | 20% |
| Midterm #2 | 25% |
| Modules | 10% |
| Lab Quiz | 10% |
| Optional Assignment | 5% |
| TOTAL | 100% |

Comments: The pass mark for all courses in the medical radiography program is 60%.

If the optional assignment is submitted, the final exam will be worth 30% of the final grade.

■ Course Learning Outcomes/Competencies

CAMRT COMPETENCIES

On successful completion of the above outcomes, you should be prepared to perform the following competencies as defined in the "Competency Profile" for radiographers established by the CAMRT.

Pathology for Medical Radiographers 2

Critical Tasks

- A1 *Utilize the request for consultation***
 - A1.3 Review previous imaging procedures
 - A1.4 Correlate clinical information to the prescribed examination
 - A1.5 Prioritize work
 - A1.6 Plan the radiographic imaging procedure

- A2 *Prepare room for radiographic imaging procedures***
 - A2.4 Verify the availability of medical care apparatus and supplies
 - A2.5 Obtain accessory imaging apparatus
 - A2.6 Select the correct image receptor system (conventional vs. digital)

- A3 *Prepare the patient***
 - A3.2 Verify clinical information with the patient or clinical staff
 - A3.4 Confirm patient preparation
 - A3.5 Remove all items that would compromise the quality of the image
 - A3.10 Record additional clinical information

- A4 *Position the patient***
 - A4.1 Plan the examination according to patient condition, to minimize patient discomfort

- A5 *Operate image equipment***
 - A5.8 Modify exposure factors on the basis of the patient's age, physique and condition

- A7 *Critique images and implement corrective measures***
 - A7.9 Confirm that any pathologies and anomalies are adequately visualized
 - A7.11 Determine if consultation with physician is necessary prior to dismissal of patient
 - A7.12 Determine whether additional views are required

- C4 *Perform patient care procedures***
 - C4.9 Recognize the need for immediate medical attention

■ **Verification**

I verify that the content of this course outline is current.

Etti W. Laugel
Authoring Instructor

Dec 11/03
Date

I verify that this course outline has been reviewed.

M. Filippelli
Program Head/Chief Instructor

Dec 11/03
Date

I verify that this course outline complies with BCIT policy.

John H. Enes
Dean/Associate Dean

Dec 11 2003
Date

Note: Should changes be required to the content of this course outline, students will be given reasonable notice.

■ Instructor(s)

| | | |
|-----------------|---------------------------------------------------|-----------------------------------------|
| Rita McLaughlin | Office Location: SW3 4084 | Office Phone: 604-456-8181 |
| | Office Hrs.: Mon.–Fri. 830–1630 by appointment | E-mail Address: rita_mclaughlin@bcit.ca |

■ Learning Resources

Required:

1. *Pathology for Medical Radiographers* – MRAD 3317 – Pathology 2, Course Manual
2. *Mosby's Medical and Nursing Dictionary*, C.V. Mosby Co.

Recommended:

1. *Radiographic Pathology for Technologists*, J.D. Mace & N. Kowalczyk. (1998). 3rd Ed. St. Louis: Mosby.
2. *Radiographic Pathology*, T. Linn-Watson. (1996). Philadelphia: W.B. Saunders Company.

■ Information for Students

(Information below can be adapted and supplemented as necessary.)

Assignments: Late assignments, lab reports or projects will **not** be accepted for marking. Assignments must be done on an individual basis unless otherwise specified by the instructor.

Makeup Tests, Exams or Quizzes: There will be **no** makeup tests, exams or quizzes. If you miss a test, exam or quiz, you will receive zero marks. Exceptions may be made for **documented** medical reasons or extenuating circumstances. In such a case, it is the responsibility of the student to inform the instructor **immediately**.

Ethics: BCIT assumes that all students attending the Institute will follow a high standard of ethics. Incidents of cheating or plagiarism may, therefore, result in a grade of zero for the assignment, quiz, test, exam, or project for all parties involved and/or expulsion from the course.

Attendance: The attendance policy as outlined in the current BCIT Calendar will be enforced. Attendance will be taken at the beginning of each session. Students not present at that time will be recorded as absent.

Illness: A doctor's note is required for any illness causing you to miss assignments, quizzes, tests, projects, or exam. At the discretion of the instructor, you may complete the work missed or have the work prorated.

Attempts: Students must successfully complete a course within a maximum of three attempts at the course. Students with two attempts in a single course will be allowed to repeat the course only upon special written permission from the Associate Dean. Students who have not successfully completed a course within three attempts will not be eligible to graduate from the appropriate program.

Course Outline Changes: The material or schedule specified in this course outline may be changed by the instructor. If changes are required, they will be announced in class.

■ Assignment Details

Case Study Assignment

You may choose to complete a case study on a pathological condition. To complete this assignment you will research one pathological condition covered in the Level 3 curriculum, obtain copies of appropriate films if possible, discuss the pathology indicating the **classification of disease, etiology, pathogenesis, signs and symptoms** and **radiographic appearance**. You will also research and discuss **treatment** and **prognosis**. To complete this assignment you should submit an essay using the given headings. The submission should be a minimum of two double spaced single sided pages. This assignment is due one week prior to the conclusion of lectures for the term. Students who choose to complete this assignment will have the final examination worth 30% of the final grade.

Module Assignments

There will be several modules in this course. Submission of completed modules within specified deadlines will earn you 10% of the final grade.

Laboratory Quizzes

Lab quizzes will count towards 10% of the final grade for this course.

Schedule

| Week | Number | Lectures | Lab |
|------|--------------------|----------------------------------------------------------------------|-------------------------------------|
| 1 | Jan. 5 Jan. 6 | 1. Course Introduction 2. Bone Neoplasia | No Lab |
| 2 | Jan. 12 Jan. 13 | 1. Osteogenic Sarcoma 2. Metabolic Bone Diseases | Skeletal System Lab #1 |
| 3 | Jan. 19 Jan. 20 | 1. Congenital Bone Diseases 2. Scoliosis | Skeletal System Lab #2 |
| 4 | Jan. 26 Jan. 27 | 1. Endocrine System 2. Respiratory System Introduction | Skeletal System Lab #3 |
| 5 | Feb. 2 Feb. 3 | 1. Emphysema 2. Pulmonary Edema | Endocrine System/Respiratory System |
| 6 | Feb. 9 Feb. 10 | 1. Review 2. Images | Respiratory System Lab |
| 7 | Feb. 16 Feb. 17 | 1. GI System Introduction 2. Esophageal Atresia | Midterm #1 |
| 8 | Feb. 23 Feb. 24 | 1. Ulcer 2. Diverticula | Gastrointestinal System Lab # 1 |
| 9 | Mar. 1 Mar. 2 | 1. Ulcerative Colitis 2. Review/Images | Gastrointestinal System Lab #2 |
| 10 | Mar. 8 Mar. 9 | 1. Biliary System 2. Urinary System Introduction | Midterm #2 |
| | | SPRING BREAK | |
| 11 | Mar. 22 Mar. 23 | 1. Glomerulonephritis 2. Mammary Glands and Cardiovascular System | Biliary and Urinary System |
| 12 | Mar. 29 Mar. 30 | 1. Pericardial Effusion 2. Central Nervous System | Mammary and Cardiovascular System |

| Week | Number | Lectures | Lab |
|------|--------------------|------------------------------------------------------------|------------------------------------------|
| 13 | Apr. 5 Apr. 6 | 1. Cerebral Tumours/Fractures 2. Lymphoreticular System | Central Nervous System |
| 14 | Apr. 12 Apr. 13 | 1. Easter Monday 2. Review/Images | Lymphoreticular System and Review Lab |
| 15 | | EXAM WEEK | |