BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

School of Health Sciences
Program: Medical Radiology
Option:

# Course Outline

## MRAD 1104
## Radiographic Anatomy and Physiology

**Start Date:** January, 2002 **End Date:**

**Course Credits:** 3.5 **Term/Level:** 1

**Total Hours:** 48
**Total Weeks:** 16

**Hours/Week:** 3 **Lecture:** 1 **Lab:** 2 **Shop:** **Seminar:** **Other:**

### Prerequisites

| Course No. | Course Name |
|---|---|
| Biology | Grade 11 & 12 |

### MRAD 1104 is a Prerequisite for:

| Course No. | Course Name |
|---|---|
| 1108 | Clinical Education 1 |
| 2214 | Radiographic Anatomy |
| 2210 | Clinical Education 2 |

### Course Calendar Description

During Level I of this course the lecture and laboratory material will cover the entire skeleton (exception of the skull) and the basic structures of the chest and abdomen. Emphasis both in lecture and lab will be placed on application to radiography, nomenclature, surface anatomy, specific bony structures, articulations and radiographic appearance of structures.

### Course Goals

To provide the student with an in-depth understanding of the skeleton and basic structures of the abdomen and thorax. Emphasis is placed on radiography, nomenclature, surface anatomy, specific bony structures, articulations and radiographic appearance structures.

### Evaluation

| | |
|---|---|
| Weekly Quizzes | 15% |
| Mid Term exams | |
| Lecture | 20% |
| Lab | 20% |
| Final Exam | |
| Lecture/lab | 45% |
| TOTAL | 100% |

Note: The pass mark for this course is 60%.

Each of the following statements are identified with the relevant Critical Task (CT) for Competency according to the C.A.M.R.T. publication, January 1997.

| **Course Learning Outcomes/Competencies** | **Critical Task** |
|---|---|
| Upon successful completion of this course, the student will be able to: | |
| 1. describe the structure, function and relative positions of all the bones (except the skull) which comprise the human skeleton. | CT A4 |
| 2. describe the structure, function and relative positions of all the contents of the chest and abdominal cavities. | CT A7 |
| 3. locate all bony and non-bony structures using surface anatomy. | CT A4 |
| 4. evaluate radiographs for variations in organ locations based on *body type* and *position.* | CT A7 |
| 5. identify on radiographs all parts of the bony skeleton (except the skull). | CT A7 |
| 6. identify on radiographs selected structures within the abdomen and thorax. | CT A7 |

## Course Content Verification

I verify that the content of this course outline is current, accurate, and complies with BCIT Policy.

M. Filippelli
Program Head/Chief Instructor

January 2002
Date

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

## Instructor(s)

Mary Filippelli | Office No.: SW3–4086 | Office Phone: 6918
Office Hrs.: | E-mail Address:

## Learning Resources

**Required:**

1. *Principles of Anatomy and Physiology*, Tortora and Grabowski.
2. *Mosby's Pocket Dictionary of Medicine, Nursing and Allied Health*.
3. C.A.M.R.T. *Curriculum Guide for Radiography Programs* (to be given out by program).
4. *Radiographic Skeletal Anatomy*, Bryan.
5. *Radiographic Anatomy and Physiology*, lecture notes.

**Recommended:**

(as listed for C.A.M.R.T. exam validation)

1. *Basic Physiology and Anatomy*, Chaffee and Lytle.
2. *Atlas of Human Cross-Sectional Anatomy*, Cahill and Orland.
3. *The Anatomy Coloring Book*, Kapit and Elson.

## BCIT Policy Information for Students

Refer to: BCIT Student Policies (www.bcit.ca)

## Assignment Details

| Week Number | Lecture | Laboratory |
|---|---|---|
| 1 | No classes | |
| 2 | Finger/thumb/hand/wrist | Finger/thumb/hand/wrist |
| 3 | Forearm/elbow/humerus | Forearm/elbow/humerus |
| 4 | Clavicle/scapula/shoulder | Clavicle/scapula/shoulder |
| 5 | Foot/ankle | Foot/ankle |
| 6 | Tibia/fibula/knee | Tibia/fibula/knee |
| 7 | Hip/femur/pelvis/SI joints | Tibia/fibula/knee |
| 8 | MIDTERM | MIDTERM |
| 9 | Introduction to Bodily Habitus | Introduction to Bodily Habitus |
| 10 | Chest | Chest |
| 11 | SPRING BREAK | SPRING BREAK |
| 12 | Abdomen | Abdomen |
| 13 | Cervical and thoracic spine | Cervical and thoracic spine |
| 14 | Lumbar/sacrum/coccyx | Lumbar/sacrum/coccyx |
| 15 | Ribs/sternum/trachea/pharynx/larynx | Ribs/sternum/trachea/pharynx/larynx |
| 16 | FINAL EXAM WEEK | FINAL EXAM WEEK |