



BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

School of Health Sciences  
Program: Medical Radiography  
Option:

Course Outline **Part A**

**MRAD 3304**  
**Radiographic Anatomy & Physiology**

<b>Hours/Week:</b>	3	<b>Total Hours:</b>	24	<b>Term/Level:</b>	3
<b>Lecture:</b>		<b>Total Weeks:</b>	8	<b>Credits:</b>	1.5
<b>Lab:</b>					
<b>Other:</b>					

**Prerequisites**

**MRAD 3304 is a Prerequisite for:**

Course No.	Course Name	Course No.	Course Name
MRAD 2204			Clinical Level 4

**Course Goals**

To provide students a thorough knowledge of human skull and radiographic cross-sectional anatomy.

**Course Description**

During Level 3 of this course the lecture and laboratory material will cover the skull and related structures in detail plus radiographically significant landmarks and lines. Emphasis will be placed on relating the anatomy to the positioning techniques required for good skull radiography. Also, covered during this time will be basic cross-sectional anatomy of the head, thorax and abdomen.

**Evaluation**

**Option 1**

Final Examination	50%
Midterm	40%
Quiz	10%
<b>TOTAL</b>	<b>100%</b>

**Note: The Pass Mark for this Course is 60%.**

**Option 2**

Final Examination	45%
Midterm	30%
Quiz 3	10%
Assignment	15%
<b>TOTAL</b>	<b>100%</b>

## Course Outcomes and Sub-Outcomes

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

### Competency Profile

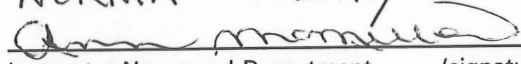
- |        |   |
|--------|---|
| A7, B1 | 1. Identify the bony components of the human skull as demonstrated on radiographs.          |
|        | 2. Select the appropriate positioning that would demonstrate specific skull anatomy.        |
| A4     | 3. Locate all the radiographically significant surface landmarks of the human skull.        |
| A4     | 4. Describe the radiographically significant localizing lines used in skull positioning.    |
| A7, B1 | 5. Identify human anatomical structures as shown on cross-sectional radiographs, including: |
|        | a. skull  |
|        | b. chest and thorax   |
|        | c. abdomen/spine  |
|        | d. pelvis   |

The course outcomes and sub-outcomes align with the following Competency Profiles of the CAMRT

- |       |   |
|-------|---|
| A4.5  | Touch the patient at the anatomical landmarks required for positioning for the examination. |
| A4.6  | Position the patient to demonstrate the required anatomical structures.                     |
| A4.8  | Direct the central ray to the correct anatomical landmarks.                                 |
| A4.9  | Align the imaging system with the required anatomical structures.                           |
| A4.10 | Collimate to the area of interest only to maximize image quality.                           |
| A7.3  | Identify anatomy and patient position on image.   |
| A7.4  | Verify that required structures are demonstrated.   |
| B1.6  | Collimate only to the area of interest to minimize patient dose.                            |

### Course Record

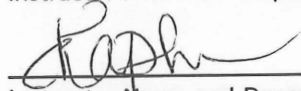
Developed by:

NORMA SMITH/  
  
Instructor Name and Department (signature)

Date:

Dec 1994

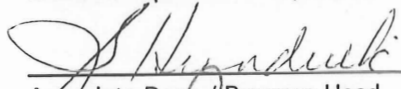
Revised by:

  
Instructor Name and Department (signature)

Date:

Dec 1996

Approved by:

  
Associate Dean / Program Head (signature)

Start Date:

Jan 1997

Dec 1998



BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

School of Health Sciences

Program: Medical Radiography

Option:

Course Outline Part B

**MRAD 3304**

**Radiographic Anatomy and Physiology**

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### Effective Date

1999

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### Instructor(s)

Dori Kaplun

Office No.: SW3-4084

Phone:

432-8743

Office Hrs.:

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### Text(s) and Equipment

Required:

- Radiographic Skeletal Anatomy, Johnson and Kennedy
- Principles of Anatomy and Physiology, Tortora and Anagnostakos
- MRAD 3304 — Radiographic Anatomy Course Manual

Recommended:

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

- The Anatomy Coloring Book, Kapit and Elson
- Basic Physiology and Anatomy, Chafee and Lytle
- Cross-sectional texts

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### Course Notes (Policies and Procedures)

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### Assignment Details

#### Cross-Sectional Anatomy Presentation

A group of 2 or 3 students will be responsible for presenting an area of cross-sectional anatomy to the class.

The presentation will consist of:

- identification of structures
- relationship of surrounding structures
- discussion of corresponding surface landmarks
- discussion of cross-sectional levels

The presentation will be evaluated and feedback provided by peers and instructor.

MRAD 3304  
Radiographic Anatomy  
January-April 1999

	Topic	page	
Sets A/C	Lecture		Sets B/D
	Lab		
Jan 5	Frontal, Parietal and Occipital Bones	6	Jan 19
Jan 7	Skull Landmarks, and Classifications Frontal, Parietal and Occipital Bones	21	Jan 21
Jan 12	Temporal Sphenoid and Ethmoid Bones	8	Jan 26
Jan 14	Temporal Sphenoid and Ethmoid Bones	37	Jan 28
Feb 2	Maxilla, Palatine, Zygoma and Mandible Bones	12	Feb 16
Feb 4	Facial Bones	48	Feb 18
Feb 9	Nasal, Lacrimal, Vomer, Inferior Nasal Concha Bones, Orbits and Combined Areas	13	Feb 23
Feb 11	Facial Bones	48	Feb 25
Mar 2	Abdomen & Pelvis X-section	handout	Mar 23
Mar 4	Midterm		Mar 25
Mar 9	Thorax X-section	handout	Mar 30
Mar 11	X-section	handout	April 1
April 6	Head X-section	handout	Apr 13
Apr 8	X-section	handout	Apr 15

Spring Break March 15-19

Exam Week April 19-23