

**CURRICULUM GUIDELINES**
**A:** Division: **INSTRUCTIONAL**

 Date: **SEPTEMBER 5, 2000**
**B:** Department/  
Program Area: **HEALTH SCIENCES**

 New Course  N 

 Revision  Y 

 If Revision, Section(s) Revised: **P**

 Date Last Revised: **1997 05 30**
**C:** **CHDA 107**
**D:**
**DENTAL RADIOLOGY THEORY**
**E:** **1.5**

Subject &amp; Course No.

Descriptive Title

Semester Credits

**F:** Calendar Description:

The purpose of this course is to help the student develop an understanding of the basic principles of clinical dental radiography. Current radiographic techniques will be covered with the emphasis being on safe and effective use of x-rays in dental practice.

**G:** Allocation of Contact Hours to Types of Instruction/Learning Settings

Primary Methods of Instructional Delivery and/or Learning Settings:

**Lecture**

Number of Contact Hours: (per week / semester for each descriptor)

**30 per semester**

Weeks per Semester:

**15**

Number of

**H:** Course Prerequisites:

**NIL**
**I:** Course Corequisites:

**NIL**
**J:** Course for which this Course is a Prerequisite:

**CHDA 217**
**K:** Maximum Class Size:

**30**
**L:** PLEASE INDICATE:

Non-Credit

College Credit Non-Transfer

College Credit Transfer:

Requested

Granted

 SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS ([www.bccat.bc.ca](http://www.bccat.bc.ca))

**M:** Course Objectives/Learning Outcomes

Objectives are based on the Provincial Competencies for Certified Dental Assistants, developed for the Ministry of Advanced Education and Job Training, 1989.

The student will be able to

1. explain x-ray generation and its use in dentistry.
2. explain the operation of radiographic equipment.
3. explain radiation hygiene.
4. outline use and care of dental x-ray films and holders.
5. explain infection control procedures in radiography.
6. explain exposure techniques.
7. process dental films.
8. mount dental films and describe landmarks.
9. discuss quality assurance.

N: Course Content

**1. X-ray generation**

Electromagnetic radiation  
X-ray production  
Beam quality  
Beam quantity

**2. Dental x-ray exposing equipment**

Machine components  
Safety features  
Operation and maintenance of intra oral machines  
Operation and maintenance of panoramic/cephalometric x-ray machines

**3. Radiation Hygiene**

Principles of attenuation  
Measurement of radiation  
Principles of protection  
Radiation monitoring  
Biological hazards

**4. X-ray film and Holders**

Dental radiographic films, intra oral and extra oral  
Film holders  
Principles of storage  
Positioning of dental x-ray film

**5. Infection Control**

Infection control significance  
Barriers

**6. Exposure techniques**

Exposure planning  
Intra oral film placement  
Bisecting angle technique  
Paralleling technique  
Bitewing technique  
Technique modifications  
Panoramic technique

## 7. Process Dental Films

Dark room requirements  
Image formation  
Processing chemicals  
Manual processing  
Automatic processing  
Rapid processing  
Storage requirements  
Process dental radiographs

## 8. Landmarks and Mounting

Radiographic appearance  
Normal landmarks  
Deviations from normal  
Film mounting

### O: Methods of Instruction

1. Lecture
2. Class discussion/participation
3. Audio-visual materials

### P: Textbooks and Materials to be Purchased by Students

- \* Torres, H.O., and Ehrlich, A., Bird, D. & Dietz, E., Modern Dental Assisting, (latest edition). Philadelphia: W.B. Saunders Co.
- \* Wilkins, E.M., Clinical Practice of the Dental Hygienist, (latest edition). Philadelphia: Lea and Febiger.
- Haring, J.I. and Jansen, L., Dental Radiography Principles and Techniques (latest edition). Philadelphia: W.B. Saunders Co.
- \* **Same texts used in all courses of Dental Assisting Program.**

### Q: Means of Assessment

Course evaluation is based on course objectives, and is consistent with Douglas College Evaluation Policies. An evaluation schedule is presented to the student at the beginning of the course.

A minimum mark of 65% is required to be successful in the course.

Outlines of evaluation may be subject to change.

**R:** Prior Learning Assessment and Recognition: specify whether course is open for PLAR

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Course Designer(s)

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Education Council/Curriculum Committee Representative

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Dean/Director

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Registrar

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