

University Curriculum Committee
Proposal for New Course

1. Is this course being proposed for Liberal Studies designation? Yes No
If yes, route completed form to Liberal Studies.

2. New course effective beginning what term and year? (ex. Spring 2008, Summer 2008) *See effective dates schedule.*

Fall 2009

3. College Health and Human Services

4. Academic Unit /Department Dental Hygiene

5. Course subject/catalog number DH 339

6. Units/Credit Hours 1

7. Long course title Radiographic Interpretation
(max 100 characters including spaces)

8. Short course title (max. 30 characters including spaces)

Radiographic Interpretation

9. Catalog course description (max. 30 words, excluding requisites).

Focuses on interpretation of oral radiographs. Topics include normal radiographic anatomy, hard tissues, caries, periodontal conditions, anomalies, and pathologies. Prerequisite: DH 338 with a grade of "C" or better

10. Grading option:

Letter grade Pass/Fail or Both

(If both, the course may only be offered one way for each respective section.)

11. Co-convened with _____

11a. Date approved by UGC _____

(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented)

12. Cross-listed with _____

(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)

13. May course be repeated for additional units? yes no

a. If yes, maximum units allowed? _____

b. If yes, may course be repeated for additional units in the same term? yes no
(ex. PES 100)

14. Prerequisites (must be completed **before** proposed course)

DH 338 – Oral Radiology

15. Corequisites (must be completed **with** proposed course)

None

16. Is the course needed for a new or existing plan of study (major, minor, certificate)?

yes no

Name of plan? Dental Hygiene Extended Major

Note: If required, a new plan or plan change form must be submitted with this request.

17. Is a potential equivalent course offered at a community college (lower division only) yes no
- If yes, does it require listing in the *Course Equivalency Guide*? yes no
- Please list, if known, the institution and subject/catalog number of the course _____

18. Names of current faculty qualified to teach this course: Jenine Blondeau, Tricia Moore

19. Justification for new course, including unique features if applicable. (Attach proposed syllabus in the approved university format).

The outcomes of the final DH 338 examination and junior and senior clinical competency exams indicate a need for additional training in radiographic interpretation. With the broadening scope of practice for hygienists and new restorative materials and techniques, it is becoming increasingly difficult and important for hygienists to be competent in radiographic interpretation. Radiographic techniques are currently taught the first year of the curriculum before students have complete understanding and prior to their clinical exposure. A more advanced course in radiographic interpretation presented later in the curriculum should better prepare students for the professional world.

For Official AIO Use Only:

Component Type

Consent

Topics Course

29. Explain by what method(s) Student Learning Outcomes will be assessed in ALL topic syllabi offered under this course number. _____

NEW JUNIOR LEVEL WRITING COURSE (refer to question 19)

30. To which degree programs offered by your department/academic unit does this proposal apply? _____

31. Do you intend to offer ABC 300 and ABC 300W? yes no
If no, please submit a course delete form for the ABC 300.

GO TO question 35

NEW SENIOR CAPSTONE COURSE (refer to question 19)

32. To which degree programs offered by your department/academic unit does this proposal apply? _____

33. Does this proposal replace or modify an existing course or experience? yes no
If yes, which course(s)? _____

34. Do you intend to offer ABC 400 and ABC 400C? yes no
If no, please submit a course delete form for the ABC 400.

35. Approvals

Department Chair (if appropriate)

Date

Chair of college curriculum committee

Date

Dean of college

Date

For Committees use only

For Liberal Studies Committee

Date

Action taken:

modified

_____ Approved as submitted

_____ Approved as

For University Curriculum Committee

Date

Action taken:

_____ Approved as submitted

_____ Approved as modified

DH339 – Radiographic Interpretation
Spring 2009

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Office Hours:
Wednesday 1pm – 3 pm
Thursday 9am – 11am
or by appointment

Credit Hours: 1

Course Prerequisites: DH338

Course Description

This course focuses on the interpretation of oral radiographs. Topics addressed in this course include: identification of normal radiographic anatomy, hard tissues, caries, periodontal conditions, anomalies, and pathologies.

Student Learning Outcomes

Upon successful completion of this course, the student will:

- Describe what is radiographic interpretation and why it is important to dental hygiene
- Use professional terminology to describe various conditions on a radiographic image
- Identify normal radiographic anatomy of the oral cavity on intraoral and panoramic images
- Identify anomalies commonly seen in radiographic images
- Identify variations of normal anatomy on intraoral and panoramic images
- Identify dental restorations and materials that are commonly seen on radiographic images
- Use the buccal object rule to identify foreign object location in the intraoral cavity
- Identify possible and probable carious lesions in intraoral radiographs
- Identify periodontal conditions apparent on radiographic images
- Identify intraoral pathologies as they appear on radiographic images
- Determine a dental hygiene diagnosis based on the identification of the above anatomy and/or conditions
- Give an overview of the interpretation using professional language
- Give an overview of the interpretation using lay language

Course Structure/Approach

This course will be a web-enhanced class to include an in-class didactic portion and a web-based portion delivered through Vista. Each unit of instruction will consist of an on-line pre-class quiz. The didactic portion will enhance the student reading and also consist of viewing radiographs of each week's subject as well as review of the previous material learned. The focus of this course is to build strong radiographic interpretation skills and will focus primarily on actual hand-on interpretation of radiographs. Each section will also consist of on-line assignments that help the student to practice what they have learned in class and in the reading material.

Textbook and Required Materials

Haring, JI, Lind, LJ. *Radiographic Interpretation for the Dental Hygienist*. Philadelphia, PA: W.B. Saunders Company 1993.

Course Outline

Week

1 Introduction, Importance of Dental Radiographic Interpretation

- Introduction to course
- Review of FDA Radiographic Recommendation Guidelines
- What is radiographic interpretation?
- Why is radiographic interpretation important to the dental hygienist?
- View various radiographs as an overview to what will be learned in this course

2 Review of Film Exposure, Processing and Technique Errors

- Film exposure errors – density, contrast
- Processing errors – time and temperature, contamination, film handling, light exposure
- Technique errors – common errors in periapical, bitewing and panoramic imaging
- View various radiographs to help students review typical errors for each section

3 Terminology to Radiographic Interpretation

- How descriptive terminology is used in radiographic interpretation
- Diagnosis versus dental hygiene diagnosis
- Review of basic radiographic terminology
- View various radiographs and use basic radiographic terminology to describe the image

4-5 Identification of Normal Radiographic Anatomy in Intraoral Radiographs

- General terms used in identification of normal radiographic anatomy
- Normal anatomic landmarks of the maxilla
- Normal anatomic landmarks of the mandible
- Normal tooth anatomy
- Tooth anomalies commonly found in radiographic images
- View various radiographs and have students identify the normal radiographic anatomy

5-6 Identification of Normal Radiographic Anatomy in Panoramic Radiographs

- What is the panoramic image used for in dentistry?
- Normal anatomic landmarks of the maxilla and surrounding structures
- Normal anatomic landmarks of the mandible and surrounding structures
- Airspaces
- Soft tissue images
- Artifacts
- Positioning errors seen on panoramic radiographs
- View various panoramic radiographs and identify the normal radiographic landmarks and possible positioning errors

7-8 Identification of Dental Restorations and Dental Materials in Radiographic Images

- Review of different materials used in dental restorations and other dental procedures
- Identification of various dental restorations on radiographic images
- Identification of dental materials on radiographic images

8 Identification of Foreign Objects and Miscellaneous Objects in Radiographic Images

- Identification of jewelry and other artifacts on a radiographic image
- Buccal object rule
- Why is the buccal object rule important?

9-10 Identification of Dental Caries in Intraoral Radiographic Images

- Description of dental caries and G.V. Black's classification for dental caries
- Detection of dental caries
- Radiographic classification of dental caries
- Conditions often mistaken for caries
- View various radiographic images to help student with the detection of caries on a radiographic image

11-12 Identification of Periodontal Disease in Radiographic Images

- Review of periodontal classifications
- The healthy periodontium as seen radiographically
- Detection of clinical and radiographic periodontal disease
- Radiographic techniques used in the detection of periodontal disease
- Radiographic limitations in the detection of periodontal disease
- Radiographic interpretation of periodontal disease
- Conditions associated with periodontal disease and their radiographic appearance

13-14 Identification of Trauma, Pulpal and Periapical Lesions in Radiographic Images

- Radiographic changes from trauma
- Radiographic changes due to resorption
- Radiographic appearance of pulpal lesions
- Radiographic appearance of periapical lesions

15 Pulling it all together

- Review of course and what was learned
- Students given several radiographic images and asked to interpret them and delivering a dental hygiene diagnosis
- Students deliver an overview to the class as if they were presenting findings to another professional in the oral health care team
- Students deliver an overview to the class as if they were presenting findings to a patient

Evaluation Methods

1. Weekly on-line pre-class quizzes.
2. Weekly on-line post-class quizzes.
3. Subject-specific assignments.
4. 3 exams
5. Final Exam

Course Policies

Ethics:

Personal and professional dental hygiene ethics are expected to be of the highest quality as defined in the Dental Hygiene Programs' policies and procedures. Any breach of ethics, such as: cheating, plagiarism, fabrication, providing false information, forgery, altering documents or helping others when not appropriate to do so are violations of the code of conduct and will result in a 0 for the activity (exam

or assignment) and may result in dismissal from the program or other Dental Hygiene Department and/or University penalties.

The American Dental Hygienist's Association Code of Ethics for Dental Hygienists is located in the Wilkins textbook and in the Cyberclinic Ethics module. Be sure to read and review this code as NAU student dental hygienists will be held to the same standards.

Didactic Course Attendance:

Professional behavior dictates attendance and participation at all sessions to maximize learning and to develop requisite professional skills. Therefore: attendance is required. If you will not be present, you must contact the course instructor PRIOR to class, and then submit a written explanation the day you return to school. Unless the instructor is advised of an absence before lecture class time, students will NOT be allowed to make-up missed exams or quizzes.

Quizzes and Tests:

1. Exams will consist of multiple choice, short answer and x-ray interpretation items.
2. Weekly pre-class quizzes will be based on the required readings.
3. Weekly post-class quizzes will be based on specific subjects discussed in the didactic portion from that week.

92% - 100% A
84 - 91% B
75 - 83% C
67 - 74% D
Below 67% F

Note: If you wish to contest how an item is graded, you must present your arguments in writing and make an appointment with the instructor to discuss the exam with realization that three things can happen:

1. the grade will not change
2. the grade will change positively
3. the grade will change negatively.

Make-up Quizzes and Tests:

If you must miss a quiz or exam due to an accepted University excuse, you may arrange with the instructor PRIOR to the day missed and arrange a make-up. If you cannot pre-arrange, you must notify the instructor as soon as you can to reschedule any make-up quiz or exam.

University Policies

See University policies regarding Safe Working and Learning Environment, Students with Disabilities, Institutional Review Board, and Academic Integrity, at <http://jan.ucc.nau.edu/academicadmin/plcystmt.html>