A. **TITLE**: RADIOGRAPHIC INTERPRETATION

B. **COURSE NUMBER**: DHYG 190

C. **CREDIT HOURS**: 2

D. **WRITING INTENSIVE COURSE**: No

E. **COURSE LENGTH**: 15 WEEKS

F. **SEMESTER(S) OFFERED**: FALL

G. **HOURS OF LECTURE, LABORATORY, RECITATION, TUTORIAL, ACTIVITY**: 1 Hour of lecture and 2 hours of lab each week

H. **CATALOG DESCRIPTION**: This course is a continuation of DHYG 145: Dental Radiology. Students will learn to identify and interpret landmarks and pathologies seen radiographically on periapical, bitewing and panoramic radiographs recognizing areas of decay, the severity of periodontal disease, common dental materials, and abnormalities of bone and tooth structure. Students attend one (1) hour of lecture and 2 hours of lab each week.

I. **PRE-REQUISITES/CO-COURSES**: Pre-requisite: Dental Hygiene matriculation. Co-Requisite: DHYG 151 Clinical Dental Hygiene I and/or permission of instructor.

J. **GOALS (STUDENT LEARNING OUTCOMES)**: Upon completion of this course, the student will meet the following course learning outcomes which are linked to the institutional learning outcomes. This course provides foundational learning for completing Dental Hygiene Program Competencies: 1.1, 1.3, 1.5, 6.2, 6.3, 6.4, 6.5

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Institutional Outcomes</th>
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<tbody>
<tr>
<td>1. Identify and discuss landmarks seen on a radiograph.</td>
<td>2. Critical Thinking</td>
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<td>3. Prof Competency</td>
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<td>2. Identify and discuss pathologies, periodontal conditions and carious lesions seen radiographically.</td>
<td>2. Critical Thinking</td>
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<td>3. Prof Competency</td>
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<td>3. Identify, discuss and chart restorative materials observed on radiographs.</td>
<td>2. Critical Thinking</td>
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<td>3. Prof Competency</td>
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<td>4. Employ radiation safety principles and infection control techniques when exposing a panoramic radiograph.</td>
<td>2. Critical Thinking</td>
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<td>3. Prof Competency</td>
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<tr>
<td>5. Critically analyze errors and artifacts observed on a radiograph and provide a solution for correcting the error(s) and/or artifacts.</td>
<td>2. Critical Thinking</td>
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<td>3. Prof Competency</td>
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</tbody>
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L. **REFERENCES**: Most current edition of the Evaluation Manual written by the dental hygiene faculty

M. **EQUIPMENT**: None

N. **GRADING METHOD**: A – F

A letter grade will be issued utilizing the following conversion table. Students must achieve a minimum C grade in all dental hygiene courses.

A 94 - 100
B+  90 - 93
B   84 - 89
C+  80 - 83
C   75 - 79
D   74 - 70
F   69 or lower

O. **MEASUREMENT CRITERIA/METHODS:**
   - Quizzes
   - Final Practicum
   - Final Written Exam
   - Radiographic Interpretation Project

P. **DETAILED COURSE OUTLINE:**

I. **Introduction to Radiographic Interpretation**
   A. Terminology
   B. Patient education

II. **Radiographic Anomalies**
   A. Developmental tooth anomalies
   B. Common tooth anomalies

III. **Dental Materials**
   A. Amalgams
   B. Composites
   C. Porcelains
   D. Gold
   E. Crowns
   F. Sealants
   G. Restorations

IV. **Periodontal Disease**
   A. Bone loss
   B. Furcations
   C. Periodontal ligament
   D. Risk factors

V. **Dental Caries**
   A. Interproximal
   B. Occlusal
   C. Buccal/Lingual
   D. Root
   E. Recurrent

VI. **Radiographic Pathologies**
   A. Soft tissues
   B. Hard tissues

VII. **Landmarks**
   A. Panoramic
   B. Periapical

VIII. **Extraoral Radiology**
A. Purpose and use
B. Equipment
C. Various types