

# COURSE SYLLABUS

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| <b>Course Title:</b>  | Radiography Theory & Practice for the Dental Assistant  | <b>Date submitted:</b> | January 30, 2107<br>(AAC: 17-38) |  |
| <b>Department:</b>  | Allied Health   |                        |                                  |  |
| <b>Curriculum:</b>  | Dental Assisting  |                        |                                  |  |
| <b>Course Descriptors:</b><br>Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system. | <b>Course Code:</b> (eg. ACC 101)   | DAS*164                |                                  |  |
|   | <b>Course Type:</b>   | D/X                    |                                  |  |
|   | A: Clinical B: Lab D: Distance Learning<br>I: Individual/Independent L: Lecture N: Internship<br>M: Seminar P: Practicum U: Studio<br>X: Combined Lecture/Lab Y: Combined Lecture/<br>Clinical/Lab Z: Combined Lecture/Studio   |                        |                                  |  |
|   | <b>Elective Type:</b>   | G                      |                                  |  |
|   | AH: Art History E: English FA: Fine Arts G: General<br>HI: History HU: Humanities LA: Liberal Arts<br>FL: Foreign Language M: Math S: Science<br>SS: Social Science   |                        |                                  |  |
|   | <b>Credit Hours:</b>  | 3                      |                                  |  |
|   | <b>Developmental:</b> (yes/no)  | No                     |                                  |  |
|   | <b>Contact Hours:</b>   | Lecture:               | 2                                |  |
|   |   | Clinical:              | 0                                |  |
|   |   | Lab:                   | 3                                |  |
|   | Studio:   | 0                      |                                  |  |
|   | Other:  | 0                      |                                  |  |
|   | TOTAL:  | 5                      |                                  |  |
|   | <b>Class Maximum:</b>   | 24-Lec<br>12-Lab       |                                  |  |
|   | <b>Semesters Offered:</b>   | W                      |                                  |  |
| <b>Prerequisites:</b>   |   |                        |                                  |  |
| C or better in Principles of Radiation for the Dental Assistant (DAS *148)  |   |                        |                                  |  |
| <b>Corequisites:</b>  |   |                        |                                  |  |
| Matriculation in the Dental Assisting Program   |   |                        |                                  |  |
| <b>Other Requirements:</b>  |   |                        |                                  |  |
| Current CPR/First Aid Certification   |   |                        |                                  |  |
| <b>Ability Based Education (ABE) Statement</b>  | At Tunxis Community College students are assessed on the knowledge and skills they have learned. The faculty identified the General Education Abilities critical to students' success in their professional and personal lives. In every class, students are assessed on course abilities, sometimes program abilities, and, in most classes, at least one General Education Ability. Students will receive an evaluation of the degree to which they have demonstrated or not demonstrated that General Education Ability. |                        |                                  |  |
| <b>Catalog Course Description:</b>  | Provides and in-depth study of principles of the X-ray production and radiation physics, biology, and safety. The learned concepts in quality assurance; radiographic image identification and mounting; and patient management are applied in the study of intraoral and extraoral techniques.   |                        |                                  |  |
| <b>Topical Outline:</b><br>List course content in outline format.   | <ol style="list-style-type: none"> <li>1. Effects, measurement and safety of radiation biology</li> <li>2. Radiation protection and quality assurance</li> <li>3. Patient management and protection</li> <li>4. Infection control</li> <li>5. Intraoral digital imaging</li> </ol>  |                        |                                  |  |

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|   | <ol style="list-style-type: none"> <li>6. Bitewing radiographic techniques</li> <li>7. Periapical intraoral paralleling techniques</li> <li>8. Periapical intraoral bisecting angle techniques and use of Nomad</li> <li>9. Radiographic identification of pathological conditions and restorative materials</li> <li>10. Extraoral techniques</li> <li>11. Supplemental techniques (occlusal and localization techniques, extraoral imaging, panoramic imaging)</li> <li>12. Advanced interpretation and mounting</li> </ol>   |
| <p><b>Outcomes:</b><br/>Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.</p> | <p>Upon successful completion of this course, the student will be able to do the following:</p> <ol style="list-style-type: none"> <li>1. describe the short and long term effects of radiation (somatic and genetic effects)</li> <li>2. perform quality control tests on equipment, processing and imaging</li> <li>3. demonstrate patient protection, operator protection and follow radiation exposure guidelines</li> <li>4. demonstrate infection control procedures before, during and after exposure</li> <li>5. demonstrate infection control for processing</li> <li>6. describe basic concepts, terminology and purpose of digital imagery</li> <li>7. differentiate between direct digital and indirect digital imaging</li> <li>8. describe advantages and disadvantages of digital imaging</li> <li>9. describe techniques and demonstrate competency in taking, processing and mounting bitewing x-rays, full mouth series, Panorex, and occlusal images</li> <li>10. demonstrate competency in mounting and interpretation of all film images</li> <li>11. apply techniques for managing patients with special needs</li> </ol> <p>Students must achieve a minimum of “C” in both laboratory and didactic components for successful completion of the course.</p> <p><b>PROGRAM:</b> <i>(Numbering reflects Program Outcomes as they appear in the college catalog)</i><br/>The following program outcome(s) will be incorporated through self critique and peer evaluations:</p> <p>Professionalism – demonstrates professional etiquette in healthcare by establishing respectable relationship with patients, colleagues and supervisors</p> <p>Technology Literacy – effectively uses technology to accomplish assigned tasks</p> <p><b>GENERAL EDUCATION:</b> <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i></p> |
| <p><b>Evaluation:</b><br/>List how the above outcomes will be assessed.</p>   | <p><b>Assessment will be based on the following criteria:</b></p> <ol style="list-style-type: none"> <li>1. Quizzes</li> <li>2. Examinations</li> <li>3. Laboratory assignments</li> </ol>  |

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| <p><b>Instructional Resources:</b></p> <p>List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.</p> | <p>Required:</p> <ol style="list-style-type: none"> <li>1. Computerized digital imaging equipment</li> <li>2. Dental X-ray unit(s)</li> <li>6. Adult and child X-ray manikins</li> <li>7. Receptor holding devices and collimation devices that meet Profession standards and State, Federal laws</li> </ol> <p>Desired:</p>  |
| <p><b>Textbook(s)</b></p>  | <p>Haring, J.I., and Jansen, Laura <u>Dental Radiography: Principles and Techniques</u>. Philadelphia: W.B. Saunders Company, Latest Edition.</p> <p>Kasle, Myron J., and Langlais, Robert P. <u>Exercises in Oral Radiographic Interpretation</u>. Philadelphia: W.B. Saunders Company, Latest Edition.</p> <p><u>Torres and Ehrlich Modern Dental Assisting</u>, Bird DL, Robinson DS, Latest Edition</p> |