COLLIN COLLEGE

DIVISION OF HEALTH SCIENCES

DENTAL HYGIENE COURSE SYLLABUS

Course Information

Course Number: DHYG 1304

Course Title: Dental Radiology

Course Description: Fundamentals of oral radiography, including techniques, interpretation, quality assurance, and ethics. Lab required. Major Requirement: AAS – Dental Hygiene.

Course Credit Hours: 3
Lecture Hours: 2
Lab Hours: 3

Corequisite: DHYG 1201 ~~1301~~, or consent of Program Director

Student Learning Outcomes:

- **State Mandated Outcomes:** Upon successful completion of this course, students will:
  1. Explain the principles of radiation as it relates to physics, biology, hygiene, and safety. (SCANS: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F12, F16, C1, C3, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C18, C19)
  2. Produce and interpret diagnostically acceptable radiographs utilizing various radiographic techniques. (SCANS: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F12, F16, C1, C3, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C18, C19)
  3. Apply the principles of quality assurance and ethics in dental radiography. (SCANS: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, F16, C1, C3, C6, C7, C8, C11, C12, C13)
  4. Describe the fundamentals of oral radiographic techniques and interpretation. (SCANS: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F12, F16, C1, C3, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C18, C19)

- **Additional Collin Outcomes:** Upon successful completion of this course, students will:
  1. Interpret radiographs including exposure of intra-oral radiographs, quality assurance, radiographic interpretation, patient selection criteria, and other ancillary radiographic techniques. (SCANS: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, F16, C1, C3, C6, C7, C8, C11, C12, C13)
  2. Describe important points in the history of radiography, the x-ray tube and its components, the x-ray beam, film packets and film speed with regard to density and resolution. (SCANS: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, F16, C1, C3, C6, C7, C8, C11, C12, C13)

3. On intraoral radiographic techniques, the student will demonstrate the taking of horizontal and vertical bitewing radiographs and periapical radiographs by the bisecting and the paralleling methods.
   (SCANS: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F12, F16, C1, C3, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C18, C19)
4. On darkroom procedures, the student will describe the development process, the requirements of the darkroom, the maintenance to the darkroom, automatic processing units and common darkroom errors.
   (SCANS: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F12, F16, C1, C3, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C18, C19)
5. On radiology hazards, the student will describe the hazards involved in radiology and protection against the exposure to radiation, operator dosage, and protective methods from radiation hazards and regulatory measures.
   (SCANS: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, F16, C1, C3, C6, C7, C8, C11, C12, C13)
6. On interpretation of radiographs, the student will locate and describe normal radiographic landmarks of the Mx. And Md. Common diseases of teeth and supporting structures, factors affecting caries interpretation apical lesions, root end changes areas of periodontal disease and signs of other diseases of radiographic importance.
   (SCANS: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F12, F16, C1, C3, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C18, C19)
7. On accessory radiographic techniques, the student will demonstrate on a phantom the use of accessory radiographic techniques such as the occlusal film and the extra oral technique of the panoramic radiograph.
   (SCANS: F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F12, F16, C1, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C18, C19)

Secretary's Commission on the Acquisition of Necessary Skills (SCANS) - SCANS skills are a group of foundational skills and workplace competencies that the Secretary's Commission on the Acquisition of Necessary Skills established as vitally important for workplace success in the 21st century. In Collin's workforce programs, the SCANS skills are developed and reinforced throughout the curriculum to provide students with an opportunity to hone these skills/competencies in the context of their education. Over the course of an entire degree program, the successful student is expected to demonstrate all of the SCANS skills and competencies as part of their education. The SCANS Foundation Skills and Workplace Competencies are described at:
http://www.collin.edu/academics/programs/Workforce_SCANS_Skills_Syllabi_Code_Key.pdf

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-D140 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.