Prerequisites

None

Course Description

Introduction to radiation physics, protection, the operation of radiographic equipment, exposure, processing and mounting of dental radiographs. (2 sem hrs; 2 lec).

Statement of Purpose

The State of Texas requires certification, by the Texas state Board of Dental Examiners, of any dental personnel that will be taking dental radiographs on patients. It is the primary responsibility of the dentist aide to produce high quality, diagnostic radiographs for the dentist to evaluate for optimum patient treatment. Prior to the actual taking of radiographs, the student must understand the mechanics of the radiographic equipment, radiation physics, the biological effects of radiation and radiation health and safety measures. This course has been designed to assist the student in building a strong foundation of radiation fundamentals.

Student Performance Goals

Given the course textbook, personal notes, handouts, practical demonstrations, and other course material, the student should:

1. Learn the basic terminology, facts, theories, methods and other principals associated with dental radiology as outlined in the course syllabus.
2. Apply the knowledge learned to concrete or particular situations in a clinical setting.
3. Evaluate the learning experience from the perspective of the specified course objectives.

The student will know that these goals have been successfully completed if, after evaluated by course instructor, a final grade of “C” or greater is earned.

Course Content Objectives
1. Explain the history of radiation.
2. List the properties of radiation and explain the biological effects of radiation exposure.
3. Identify the components of a dental x-ray unit and explain the function of each unit.
4. Describe the safety precautions to be used when using radiation.
5. Explain how an x-ray is produced.
7. Identify normal and abnormal radiographic landmarks.
8. List standardized procedures and state policies that dental offices follow to ensure quality radiographs.

Course SCANS Competencies

During the course of this semester, the student will fulfill each of the following SCANS competencies by the designated means:

1. **READING**
The student will complete all reading assignments and review all handouts.

2. **WRITING**
The student will submit written answers to questions given by the instructor on exams, quizzes, and study questions.

3. **SPEAKING/LISTENING**
The student will participate verbally in class discussions, and will answer oral questions to the best of their ability. There will be verbal role playing as well. The student will listen to their instructor and classmates in order to take sufficient notes and be able to assimilate the information to ask questions when necessary.

4. **CRITICAL THINKING**
The student will formulate the information presented in class and assimilate the information in order to correctly answer the various types of questions that will be presented in exams, quizzes, and study questions. Such questions will require the student to be able to reason, problem solve, and make logical decisions based on the information given.

5. **PERSONAL QUALITIES**
The student will be expected to take all exams and quizzes independently.

Course Meeting Days and Times
Lecture Mondays 2:00 to 4:00, Allied Health Building, room 170

Course Director

Name: Dana Scott
Office Location: Allied Health Building, room 123
Office Phone: 806-356-3616
Home Phone: 806-353-6534 (Please no calls after 10:00 p.m.)
Campus E-mail address: scott-dc@actx.edu
Office Hours: Mondays, Wednesdays and Fridays 8:30 a.m. to 9:30 a.m.

Required Course Textbooks


2. Delmar’s Dental Assisting Workbook, 2000, Karen Waide

Students with Disabilities

Any student in this course who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact the Office of Accessibility Services in the Student Service Center, room 125, phone: 371-5436, as soon as possible.

Attendance Policy

“Regular attendance is necessary for satisfactory achievement. Therefore, it is the responsibility of the student to attend class.”

Due to the amount of information contained in this course, the student who plans to succeed should attend all course sessions regularly and promptly. The student will need to come to class on time, fully prepared for that session, with the necessary materials, including proper lab or clinical attire if needed. **You may have no more than 4 absences in this course without affecting your grade. 5 absences will lower your final grade average by 10 points.**

Make-up Policy

Lecture quizzes given during lecture sessions may NOT be made up. This quiz is given immediately after the lecture and only pertains to that particular lecture. It is the responsibility of the student to make arrangements with the course instructor regarding make-up work. This should be done immediately upon returning from the absence. Exams, demonstrations and competency assessments should be made up within TWO Amarillo College school days following the absence.
**Grading Criteria**

The final course grade will be calculated as follows:

- Lecture Quizzes: 25%
- Major Exams: 50%
- Final Exam: 25%

The following grade scale will be used for ALL Dentist Aide Classes. A grade of “C” or higher is necessary for successful completion of this course.

- 100 to 90 = A
- 89 to 80 = B
- 79 to 75 = C
- 74 to 70 = D
- 69 below = F

**Required Examinations and Projects**

This course will consist of 8 lecture quizzes, 3 major exams, and 1 final. The lecture quizzes are given immediately after a scheduled lecture. The quizzes give the instructor the criteria needed to assess the students' comprehension of the covered material and helps the student to prepare for future examinations. Major exams immediately follow the completion of that particular unit of work. The exams consist of written questions. The end of course final will be comprehensive. One extra point may be added to the final score by writing a 1 1/2 to 2 page research report in advance. The report will be due one week before finals and the subject matter will need the approval of the course instructor.

**Course Ethics**

At Amarillo College, there are grave academic penalties for unethical conduct. The policy and penalty for such conduct is provided in the General Catalog as follows:

> “A high standard of conduct is expected of all students. It is assumed that obedience to the law, respect for properly constituted authority, personal honor, integrity and common sense will guide the actions of each member of the college community both in and out of the classroom. The student code of conduct is published in the Students Rights and Responsibilities publication. Any student who fails to perform according to expected standards may be disciplined.”

It can be concluded from this statement that cheating and other forms of unethical conduct are absolutely forbidden by Amarillo College policy. Any form of unethical conduct in this course will result in a final grade of “F”, regardless of any other grades earned. This policy will be strictly enforced.
**Electronic and Recording Devices**

All electronic devices such as cell phones or beeper/pagers are prohibited in this course. No tape recordings of the lecture or lab sessions are permitted. Reading the assigned chapters prior to class and taking notes during lecture will assure proper coverage of material for preparation for quizzes and exams.

**Student Grievance Procedure**

A student who has a problem with the course instructor should make every attempt to resolve the problem with the course instructor first. If that is not successful, the student may appeal the decision of the instructor to the Program Director, then the Chairman of the Allied Health Division, then the Dean of Instruction, and then the President... IN THAT ORDER. Please refer to the Students Rights and Responsibilities publication for procedures to follow for grievances of a general nature, an academic nature, or regarding discrimination.

**Tentative Course Schedule**

See attached schedule.

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>08/27/01</td>
<td>Orientation. Campus tour. Assignment Ch 17 pp.311-312 terms</td>
</tr>
<tr>
<td>09/03/01</td>
<td>LABOR DAY HOLIDAY</td>
</tr>
<tr>
<td>09/10/01</td>
<td>Syllabus, Ch 17 terms. Ch 17 units pp.317-320</td>
</tr>
<tr>
<td>09/24/01</td>
<td>Ch 17 EXAM I(9-03 thru 9-17) Ch 17 pp.322-23 Film &amp; pp.325 Infection control. Video. LQ</td>
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<tr>
<td>10/01/01</td>
<td>Ch 17 pp 346-351 Errors. Lec quiz</td>
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<tr>
<td>10/08/01</td>
<td>Ch 17 Errors continued. Lec quiz</td>
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<tr>
<td>10/15/01</td>
<td>Ch 17 EXAM II (9-24 thru 10-8) Ch 17 pp.366-370 Terms, Landmarks</td>
</tr>
<tr>
<td>10/22/01</td>
<td>Ch 17 Landmarks continued. Intro Mounting pp. 361,62 lec Quiz</td>
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<tr>
<td>10/29/01</td>
<td>Ch 17 Mounting continued.</td>
</tr>
<tr>
<td>11/05/01</td>
<td>Ch 17 Intro angles, bisecting, parallel. pp.324 - 328 Lec quiz</td>
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<tr>
<td>11/12/01</td>
<td>Ch 17 Quality Assurance pp. 370- 373 Lec quiz</td>
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<tr>
<td>11/19/01</td>
<td>Ch 17 Processing solutions. pp.354, 358 Lec quiz</td>
</tr>
<tr>
<td>Week of Finals</td>
<td>Date and Time of Final Exam TBA in Class</td>
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